

CLIENT AFFECTIVE VERBALIZATION
AND THERAPIST INFLUENCE STRATEGIES IN
ANALOGUE PSYCHOTHERAPY INTERVIEWS

By
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DEDICATION

To Barbara

Whose patience and support have
made all the difference.

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Psychotherapy theory emphasizing interpersonal interaction is used as a theoretical base for considering strategies that therapists might take to increase client affective verbalization in therapy situations. Previous research of analogue interviews is used for defining the strategies, Instruction, Modeling, and Reinforcement, and for defining the dependent measures, client affective verbalization and client affective self reference. Professional therapists conducted single interviews with experimental subjects, after the dyads were matched on interpersonal need compatibility and on all sex combinations. A rating system for determining affective verbalization and affective self reference was developed and applied to typed transcriptions of the interviews. Therapist strategies were also measured by

a rating system. All rating systems were implemented through a training manual and standard procedure. Hypotheses predicted that client affective verbalization and client affective self reference would increase across the interview, with the therapist strategies associated with larger increases. Interpersonal need compatibility, sex of client, and interactions between those two variables and the strategies were also predicted as important in the effects related to the dependent measure.

The rating procedure appeared adequate with rating checks producing good reliability. Data were analyzed through a split plot factorial ($2 \times 2 \times 3$) analysis of variance of compatibility, client sex, and segment separately for client affective verbalization and client affective self reference. One effect was significant: compatibility X client sex, with a simple main effects test indicating that the compatibility manipulation was effective only for female clients, as previous research has suggested. Other analyses were conducted through Pearson or Spearman correlations. Results suggested that clients tend to influence the affective verbalization level of therapists rather than vice versa, and that therapists in this sample do not actually use the strategies which analogue studies have researched. There was support for therapists believing that client affective verbalization is important to treatment outcome. Alternative hypotheses and alternatives for further research are discussed.

CHAPTER 1 INTRODUCTION

Psychotherapy is an important phenomenon, both culturally and scientifically. Culturally, it is the practice of a helping profession by therapists and the seeking of assistance by clients. Scientifically, it is the interaction of two types of experimental subjects, where one subject is to effect some change in the other, often changes in very basic personality processes of the client subject. In both cases, a major question is that of how the therapist has his impact with the client. As Strupp (1973) puts it, "How does it come about that one person, by virtue of what he is or what he does, can exert such a lasting influence on another person that the changes that result from this encounter may be termed therapeutic?" (p. 19) The variations of this question and the more specific implications of it are numerous and complex, as indicated by the scope and number of reviews on research of psychotherapy (e.g., Bergin & Garfield, 1971; Bordin, 1974; Kiesler, 1973; Meltzoff & Kornreich, 1970). The present study will be focused on looking at one aspect of answering the above question.

One difficult task in beginning this focusing is specifying the way in which the interaction of therapist and client is to be conceptualized and described. The general

features of this task are essentially the same as those involved in trying to describe the interaction of any interpersonal dyad, and the controversy which attends any attempt to do this reflects the complexity of the problem. Despite the complexity, however, people do manage to relate with one another so as to reach a consensus that in their relationships some behaviors are okay and others are not okay. This mutual definition of the relationship is reached with sufficient clarity for each person to feel that he or she knows generally what to expect and what not to expect from the other person. Given that this is true, and it seems to be a reasonable postulate, it should be possible to describe some important aspects of relationships, including therapeutic relationships, and to do so using only the cues each person in the interaction has access to--the observables of communication.

Much of the complexity of communication arises out of its imprecision, and it is unreasonable to expect a methodology for describing communication to be any more precise than communication itself. In a sense, not only is the experimental observer inferring the "meaning" of the messages composing the interaction of a dyad, but each member of the dyad is making inferences about the meaning of the other member's messages as well as coming to understand more clearly what meaning he is trying to convey. This kind of process which has a basic nature of inference and variation of meaning can not be represented clearly and precisely in any other way than to reproduce it exactly, and our closest approximation to that is video-tape or sound movies. In itself, such

a reproduction does not get us any closer to understanding the process of communication, however. A representation apart from a reproduction is required, and this implies the operation of a theory providing a model for the representation and an artificial limitation of the complexity allowed in the representation. Numerous researchers recognize specifically the need for limiting the complexity of the process studied (Auld & Murray, 1955, Cartwright, 1966; Guetzkow, 1950; Kiesler, 1973; Marsden, 1971; and Strupp, 1962) and the need for being specific about the theory used. The influence of the theory on our selection of the particular phenomena studied cannot be over-emphasized, since the operation of a theoretical perspective in the selection of a representation is the primary determinant of the meaningfulness of the research no matter how sophisticated other aspects of the research may be.

Researching communication, then, involves the selection of a theoretical perspective which will dictate the aspects of communication to be described, but we cannot expect the application of a description system to render communication any clearer or more precise than it actually is. The actual selection of that theoretical perspective involves both the preference of the experimenter and the theory's support in the literature.

Many researchers focus on the nature of psychotherapy as a special case of a general dyadic communication model (Kiesler, 1973). Certainly there is ample theoretical pre-

cident for this focus. Sullivan (1953, 1954) is generally considered the first theorist to have emphasized the interpersonal-interactive nature of pathology and therapy, and numerous theorists and researchers since have developed interactive formulations, most focused on communication processes (Alexander, 1957; Buck & Cuddy, 1966, Buehler & Richmond, 1965; Davis, 1971; Frank, 1961; Greenhill, 1958; Heller, 1963; Hoch & Zubin, 1958; Jones & Thibaut, 1958; Riess, 1957; Rioch & Weinstein, 1964; Ruesch, 1961; Scheflin, 1965; Sebeok, Hayes, & Bateson, 1964; Watzlawick, Beavin, & Jackson, 1967; Williamson, 1959).

Another such theorist-therapist-researcher is Haley (1963) who developed a framework based on his background in communication science (Ruesch, 1961; Reusch & Bateson, 1951) and on his work with families of schizophrenics in the Palo Alto group (Bateson, Jackson, Haley & Weakland, 1956). Haley's conceptualization appears to be a useful framework for psychotherapy research, even though it has apparently been used in only a few well-controlled studies of psychotherapy (Davis, 1971; Davis, Fisher, & Davis, 1973, 1975; Waddington, 1975). Its use in the research conducted by Haley's research group was occassionally systematic, but only informally so (e.g., Jackson, Riskin, & Satir, 1961).

This appears largely due to the complexity and subjectivity involved in applying the entirety of Haley's model to interactions, since it accounts for such complex phenomena as the influencing aspects of statements, the metacommunica-

tive function of communications, and the paradoxical nature of much therapy interaction. In these ideas lies the eventual promise of Haley's model for application to explaining and refining the process of therapy, but as Haley points out (1964), the research proceeding from a model must be based on highly reliable measurements, even if some of the meaningfulness of our initial description is lost as a result. In this particular paper, only the very basic ideas of Haley's model will be used, attempting by that limitation to develop adequate tests for those ideas.

Communication as Relationship Definition

Haley contends that whenever two people interact they must engage in attempts to solve two mutual problems simultaneously. One problem requires answering the question: what behaviors (including messages) are to be allowed in this relationship? In other words the dyad attempts to reach a mutual definition of the relationship. The second problem requires an attempt to answer the question: who is to control the definition of the relationship? Here it is not control over behavior directly but over the definition of the relationship. This definition is very powerful, however, and provides indirect influence over behavior.

Haley argues that no matter what messages are exchanged or what behaviors engaged in, those messages and behaviors represent attempts to reach mutual solutions to the two problems. In other words, the interaction of any dyad, including

that of therapist and client, can be seen as involving a process of attempting to reach a mutual definition of what behaviors will and will not occur in the relationship, and a process of determining who will control the definition.

Control of the definition is an important issue, and can be seen as a competition between the two participants in a dyad. Each is engaging in purposive behavior directed toward obtaining some desired and satisfying state of affairs, and rarely do these purposes coincide so exactly as to allow an entirely cooperative venture. Since the definition of the relationship is essentially a statement about what behaviors are to be allowed in the interaction, the person who controls that definition is influencing the interaction and therefore the other person, and has an advantageous position. The person not in control is expected to attempt to take control by redefining the relationship in a more satisfactory way for him.

Therapist Goals as a Definition

Most of an effective therapist's "needs" in a session are directed toward therapeutic goals, and are essentially the needs the therapist is attempting to satisfy in his efforts to control the definition of the relationship. One way in which therapists frequently want to influence the interaction is by focusing the client into a particular style of interaction. Many theories of therapy emphasize the importance of styles of interaction, as for example in seeing

the client's expression of affect as a positive step in reaching therapeutic goals, either, for example, in client-centered therapy as a major process, or in psychodynamic therapy as a cathartic and insight-generating process.

This control of style is most clearly a control of the definition problem when the client does not exhibit the desired behavior initially, as is usually the case. The therapist wants the relationship to be one in which it is acceptable for the therapist to respond in compatible ways (e.g., reflecting affect, making interpretations about the affect, etc.). If the client interacts this way naturally there is no problem, and the therapist and client get to business rather quickly. If the client does not, the therapist must help arrange for this to happen. The way this is attempted will be referred to as the therapist "strategy."

To summarize the rationale to this point, Haley's model describes the interaction between therapist and patient as like that of any dyad and consisting of the processes of determining the definition of the relationship and competing for control of that definition. It is through these processes that the interpersonal influence of therapy takes place.

One implication of Haley's theory as it is being considered is that the therapist is expected to work toward implementing the therapeutic goals as the definition of the relationship, insofar as they apply. In developing a research examination of this theoretical position, a specific

therapeutic goal and specific therapist interventions for increasing the occurrence of the goal behavior will be considered. In order to clearly indicate the relevance of the interventions, the goal behavior will be discussed first.

CHAPTER 2 DEFINING THE RESEARCH QUESTION

The general research question of the present study was stated above as: "How does the influence of therapy occur?" In the present formulation, a more specific question becomes: "How does the therapist behave so as to attempt instituting the therapy goal behaviors as a definition of the relationship?" The first step in operationalizing this question for the present study is selecting and defining a specific therapy goal for study.

As used in this paper, a "therapist goal" is defined as a behavior which may be engaged in by the client and which is believed by the therapist to be related to the occurrence of therapy. "Therapy" is defined as a client interacting with a therapist and working toward a change in the initial behavior, feelings, or belief system of the client, with that change in the direction of from less to more desirable as defined by the client, by society, or by the therapist. "Mutual definition of the relationship" is defined as the statement of acceptable behaviors desired by the therapist and exhibited by the client. Here we are considering only the case where the therapist is in control. If the client is not exhibiting the desired behaviors and the therapist stops making attempts to influence the client to do so, the

client could be said to be in control. Note that the focus here is on the therapist's belief about what client behavior is therapeutic, and in studying the therapist's process, it is important to look at client behaviors that are believed to lead to the occurrence of change and desired to be a characteristic of the client early in therapy.

For example, almost all psychotherapists would see "the client verbalizes" as such a goal. Except for the rare case, the client's talking is a pre-condition to the occurrence of therapy change. A related client behavior is that when the client talks the client talks about affect. This notion, that the client's verbalization of or about affective states is important to therapy, appears to be shared by many systems of therapy, either through the direct theoretical statement of the therapist or through the implication of the goal that is set (e.g., see Harper, 1959). Even when this is not a primary end, as it is in client-centered therapy for example, it is frequently a secondary end allowing the therapist and client to gain the information they need to proceed with other goals, as for example in rational-emotive, or various psychoanalytic therapies. This client behavior, the verbalization of affect, will be the therapist goal in this study.

Research has often focused on the variable, "client expression of affect," and operationally defined it in terms of judges' ratings (e.g., Waskow, 1962; Ellsworth, 1963) or in terms of systems making inferences about the client's

emotional state on the basis of his verbal behavior (e.g., Gottschalk & Gleser, 1969). In the present study as in other studies to be discussed later, the importance of the client's expression is that it is done directly, by verbalizing using feeling words, particularly since it facilitates a process of the therapist and client mutually coming to understand something about the client. There are, of course, other points at which the client is expressing or experiencing feelings, and the client's direct report of his feeling may or may not fit our judgements about his immediate affective state. In considering this study's specific goal for the client, however, it is the client's verbalization of affect words that is of interest.

Defining client affect expression in this way also facilitates the precision and usefulness of psychotherapy research as scientific data. Haley (1964) as well as others (see Kiesler, 1971, 1973) argue for the selection of discretely measureable behaviors in researching psychotherapy and other interpersonal processes. Doing so minimizes the inference inherent in the measurement process itself, and allows us to look formally at the inferences made in a systematic way.

The degree to which we can make inferences based on this kind of data is limited by its measuring less general, though more reliably measured, behaviors. As long as the inferences made from the study are made after careful consideration of the limitations of the data, the problem is more one of frustration in being unable to deal with more rele-

vant and meaningful general constructs rather than a problem of experimental error. A particularly critical example of this potential error in this study, as suggested above, is that of confusing the variable "client verbalization of affect words" with the more general variable "client affective expression." The first refers to characteristics of the denotative meaning of words and idioms used by the client while the latter refers to inferences made about the state of the client in using whatever language he uses. In this study, then, it will be important to recognize that the data, and inferences made from it, are based on considerations of the kinds of language used by a person and not necessarily on whether or not that person is in touch with affective experience.

Although there is a significant amount of literature dealing with verbalization of affective words as a dependent variable there appears to be little that has examined its validity as an indicator that important aspects of therapy are occurring when it occurs or as a predictor of successful outcomes. Levy (1967) provided support that in statements where judges agreed therapy was occurring in primarily analytic sessions there was a greater proportion of statements with affect words than in statements where therapy was judged not to be occurring. Isaacs and Haggard (1966) found that therapist attention to patient affective verbalizations resulted in the patient's responses having an increased affective orientation. Braaten (1961) demonstrated that increasing expression of feeling with reference to self as opposed

to nonself was related to therapist-rated success in client-centered therapy. The validity of this variable seems theoretically and intuitively adequate, and its validity will be examined further in the present study by examining its relationship to session outcome.

Significant reliability between raters of interaction material is often used as a measure of the adequacy of data for process research, and in many studies it is sufficient to answer the questions posed. In the present study and for future extension to other aspects of Haley's model, however, it is important that "discrete" mean that with very few exceptions it can be agreed that a particular instance of a chosen behavior has or has not occurred. In order to attempt achieving this type of precision of measurement without losing the relevance of the behaviors in which we are interested, the communication situation must be considered in more detail and then the particular variables to be considered in this study can be defined. An overview of the field of communication science as it relates to psychotherapy research will be used to supply greater detail and establish perspective.

Communication Science: An Overview

Kiesler (1973) in presenting process studies of psychotherapy and proposing a structure for developing such studies suggests Markel's (1969) model of dyadic interaction. The basic communication situation is composed of an originator of a message, the ENCODER, a recipient of a message, the DE-

CODER, and a response of an encoder which may be the stimulus for a decoder, the MESSAGE. COMMUNICATION results when a response of an encoder is received as a stimulus for a decoder. In further specifying the communication situation, Markel identifies six channels of human "face to face" communication by specifying the source in the encoder response. The channels with the source and destination for each are: speech (vocal tract, ear); kinesics (body movement, eye); odor (chemical processes, nose); touch (body surface, skin); observation (body surface, eye); and proxemics (body placement; eye). In psychotherapy research all three of the basic communication "entities" are important, and only three of the channels are studied to any significant extent at present: speech, kinesics, and proxemics. Odor appears to be studied the least, with observation and touch gaining attention. Speech is by far the most studied of all the channels.

Speech is divided in a number of ways which are important in specifying the way this study is going to deal with communication. Morris (1946) divides the science of language into three aspects: SYNTACTIC, formal relations of signs to each other; SEMANTIC, relations between signs and the objects to which the signs are applicable; and PRAGMATIC, the relations between signs and users of signs. This study will consider aspects of each of these areas.

Linguistics is one of the largest areas of communication science. Morris (1946) defines it as the descriptive study of the formal characteristics of language, and classi-

fies it under syntactics. Trager (1966) defines it as the scientific study of human language or speech; the study of messages once they are "on the air." Linguistics is composed of three areas: PHONOLOGY: the study of sounds, with units of increasing size called the phoneme, phone, syllable; MORPHOLOGY: the study of shapes (forms) constituted by sequences of sounds, with units of the morpheme, morph, and word; and SEMOLOGY (syntax or grammar): the study of the sense, the meaningful arrangements, from which the symbolizing functions arise, with basic units of the part of speech, constituent, and the sentence.

Psycholinguistics is the study of the relation between messages on the speech channel and the cognitive or emotional states of human encoders and decoders who send and receive the messages (Markel, 1969). Linguistics studies language sounds, those sounds necessary to the production of meaningful speech, and psycholinguistics includes the study of non-language speech sounds, those whose variation does not change the linguistic meaning of the speech.

This study will consider only one channel, speech, and within that only those aspects studied within linguistics proper. There are two primary reasons for this: 1) the variables to be defined deal with the meanings of language communications and the content of speech is the most important for measuring them; and 2) more highly valid and reliable measures can be made using a single channel and single type of meaning considering the present state of communication measurement methodology.

Defining Communication of Affect

A number of studies have utilized measures of verbalization of affect words, though with significant variations in its definition. Levy (1967) studied the "communication of affect" and defined it in terms of the verbalization of words from a list of affect words which he developed from analytic interviews. Moos and Clemes (1967) used "percentage of feeling words" as one dependent variable and defined it by "enumerating examples of words directly relevant to an individual's affective state" (p. 121).

Most other studies using this measure have been investigating the effects of various therapist behaviors on client verbalization of affect within operant conditioning paradigms. Here too the specific definition used has often varied. The most popular definition has also included the stipulation that the statement be a self reference and is accordingly called an "Affective Self Reference." Salzinger and Pisoni (1958, 1960) appear to have made the first formal use of this definition, which specifies that the response class statement must be an "I" or "We" statement describing or evaluating the client's own state, except for intellectual or physiological, and providing some rules for instances where the judgement is unclear. A number of other studies have used this definition or small modifications of it (Hekmat, 1971a, 1974; Hekmat & Lee, 1970; Hoffnung, 1969). "Affective Self Disclosure" has been used as the response class by Hekmat and Thiess (1971) and Hekmat (1971b). It

differs from the Affective Self Reference in using only "I" statements and considering affective expressions only if they have the form: "I feel....," with an expression of affect. Other definitions have included the "Feeling Statement" (Green & Marlatt, 1972) with extensive rules, and two closely related definitions, the "Emotional Words" measure (Merbaum & Lukens, 1968) and the "Client Affective Word" measure (Barnabei, Cornier & Hye, 1974; Crowley, 1970).¹

Variations, then, have included whether or not there was a self-reference required and whether that included statements beginning with we; whether the affective expression was positive or negative or unscored for direction; whether only certain types of affective statements were considered or certain types excluded; whether both therapists and clients were scored; and whether statements were required to be with reference to present time or not (immediacy). The present study will use a definition modeled after Green and Marlatt's rules (Note 1), but reducing the amount of judgement to be exercised by raters by using a more extensive listing of affect words, and reducing the extent to which evaluation is included as feeling expression. In order to increase the applicability of this study to other studies, statements will be scored both with and without a self reference required.

The inference is being made that a behavior like client

¹Psycho-Dlc, a content analysis dictionary, appears to have the capability for defining this measure in any of these ways, but no studies using it for this purpose were found.

verbalization of affect reflects a definition of the relationship, and the research question becomes, "How does the therapist behave so as to attempt increasing client affective verbalization?" The literature related to increasing client verbalization of affect indicates the particular effectiveness of at least three strategies. One is that the therapist tells the client directly what kind of relationship he (the therapist) wants; i.e., the therapist instructs the client on how to behave. A second is that the therapist suggests a definition and behavior by modeling the desired client behavior. Third, the therapist utilizes differential verbal reinforcement of the desired behavior to increase its occurrence.

The first strategy is the use of instructions by the therapist, and has been studied and found effective in a number of studies (e.g., Green & Marlatt, 1972; Lukens, 1970; Merbaum & Lukens, 1968; and Whalen, 1969). Here the therapist communicates directly to the client that in the relationship it is the client's responsibility to engage in particular behaviors, and perhaps, not in other behaviors. For example, at the beginning of the interview, the therapist might say, "During the interview, you are to talk about your feelings about yourself, and not about the feelings other people have or subjects unrelated to yourself." In that case, the therapist would be making a very explicit definition of the relationship as to what he expected from the client.

The second strategy is for the therapist to be a model

for the client of the desired client behavior, and this has also been examined and found effective in increasing client affective verbalization in several studies (e.g., Green & Marlatt, 1972; Marlatt, 1971; Myrick, 1969; Whalen, 1969). In using this strategy, a therapist would be observed to use affective words, or in the case of modeling affective self references, to make statements with reference to the therapist's affect.

Various types of verbal conditioning techniques are the third strategy and the area to be considered here uses "agreement" as a social reinforcer, with specific instances as "mmm-hmm," "good," "wonderful," "yeah," "I see," etc. (e.g., Hekmat, 1971b, 1974; Hekmat & Lee, 1970; Moos & Clemes, 1967; Salzinger & Pisoni, 1960). A therapist using this strategy would be observed to give reinforcing responses after a large proportion of client statements containing affect words or idioms (or affective self references) and after a small proportion of other statements. Effective use of this strategy probably involves indiscriminant and frequent use of the reinforcing response(s) early in the session to establish its reinforcing power (Waskow, 1962), and the discriminant use of such responses subsequently.

Research has indicated that another important factor in considering variables in therapist-client control is the interpersonal need compatibility of the particular therapist-client dyad (Gassner, 1970; Sapolsky, 1960, 1965). The FIRO-B (Fundamental Interpersonal Relations Orientation -

Behavior, Schutz, 1966) is most used for assessing this variable, and has been demonstrated to be a reliable and valid indicator of interpersonal compatibility on a number of measures. Of the three interpersonal needs postulated by the FIRO scales, the most important for the present formulation is the need for inclusion and control, and of the various compatibility computations, that of reciprocal need compatibility is most appropriate. In formulating hypotheses about the use and effectiveness of the above therapist strategies the combination of reciprocal compatibility for Inclusion and Control of the therapist-client dyads will be considered.

One study (Mendelsohn & Rankin, 1969) has indicated that sex may also be an important variable. It was found that the compatibility measures work well in some ways with female clients, but poorly with male clients. Sex of therapist did not appear to be an important factor in the differences. Therefore, sex of client will also be considered as a variable in assessing the effects of the compatibility measure.

In summary then, client affective verbalization and client affective self reference are considered important variables, and three therapist strategies have been shown to be effective in increasing the frequency of occurrence for both these variables in quasi-therapeutic situations. Previous studies have apparently not examined the relationship of variables in situations more closely resembling actual therapists who have not been specifically instructed to engage in the strategy behaviors. The theory and literature re-

viewed above suggests that therapists may engage in these behaviors in actual interviews, and that when they do, clients' use of affective words increases across the interview.

The interviews will occur in a standardized situation with each therapist serving as a control for himself or herself, and the literature suggests that two other variables require control and examination as independent variables. These variables are interpersonal need compatibility and client sex, and these can be both independent variables and controlled in other analyses by utilizing a completely balanced design with respect to them. In addition, therapist sex can also be included in the balancing to control for effects of that variable.

Although client affective verbalization and affective self reference were consistently assumed important in the literature reviewed, little evidence was cited which defended this assumption. In order to examine the validity of these variables in terms of session outcome, measures of session outcome will be examined.

Hypotheses can be conceptualized as falling into three groups. The first group deals with the question of whether or not therapists use the strategies as defined, whether or not the expected changes in client affective verbalization behavior occur, and whether or not they occur or are more pronounced when considering the strategies.

The second group of hypotheses deals with the variables of compatibility and client sex both as independent variables by themselves and also as they interact with the stra-

tegies and each other. The third group deals with the relationships between client affective verbalization measures and session outcome measures, with consideration given to the possible role of compatibility. The hypotheses are formally stated and labeled below.

Research Hypotheses

It is hypothesized:

Group 1

1. that each therapist uses one or more of the above strategies;
2. that a) client affective verbalization and b) client affective self references will increase across the interview;
3. that greater use of a strategy is associated with larger increases in client affective verbalization;
4. that greater use of a strategy is associated with larger increases in client affective self reference;

Group 2

5. that a) higher compatibility will be associated with enhancing the positive effect of the therapist strategy behaviors, and b) that higher compatibility of the therapist-client dyad will be associated with (1) client affective verbalization and (2) client affective self reference increasing across the session, and with (3) total client affective verbalization and (4) total client affective self reference;
6. that a) the positive effect of the therapist strategy

of increasing client affective verbalization and client affective self reference will be enhanced with female clients and not with male clients, and b) that female clients and not male clients will be associated with (1) client affective verbalization and (2) client affective self reference increasing across the session and with (3) total client affective verbalization and (4) total client affective self reference.

Group 3

7. that a) client affective verbalization and client affective self reference will be positively associated with session outcome, and b) higher compatibility will enhance the positive association of client affective verbalization and client affective self reference to session outcome.

CHAPTER 3 TECHNICAL CONSIDERATIONS

Method

Subjects. There were two groups of subjects: 10 currently practicing psychotherapists, 5 male and 5 female, with at least 5 post-degree years of experience each; and 40 clients, 20 male and 20 female from the subject pool in the Psychology Department at the University of Florida.

Apparatus. Apparatus used in the experiment included standard videotape-recording equipment, and cassette transcribing equipment. The same room and seating arrangement were used in all interviews.

Paper and pencil instruments. Paper and pencil scales used were the FIRO-B (Fundamental Interpersonal Relations Orientation-Behavior, Schutz, 1966), the Problem Pathological Potential Scale (Blumberg, 1968), a therapist post-session evaluation form (see Appendix A; Blumberg, 1969), and a client post-session evaluation form (see Appendix B; Blumberg, 1969).

Design. Through matching on test scores, client subjects were assigned to therapists such that each therapist had one client in each cell of two levels of compatibility by two levels of client sex. Interviews were considered as

being composed of three segments, and the design, therefore, can be viewed as a factorial design: 2 X 2 X 3, compatibility X sex of client X segment of interview (repeated measures). Where inappropriate to apply analysis of variance techniques, the independent variables and the dependent variables were examined by considering their correlational associations and graphs of interaction relationships.

Procedure. The raw data for this study were taken from transcripts of interviews videotaped as part of a study by Goldman and the author (Note 2). Therapists and potential clients were tested on the FIRO-B, and the combined reciprocal compatibilities for Inclusion and Control computed for all pairs. Potential clients had been obtained through their responding to a notice on the Psychology Department experiment bulletin board (see Appendix C), and the therapists were obtained by personal contact with the experimenters. High compatibility was operationally defined as existing in a pair when that pair's score fell within the bottom 5% of that therapist's scores with all potential clients. Low compatibility was defined as scores falling in the top 5%. If insufficient matches were available to fill all four cells [same- and opposite-sex clients and high and low compatibility], additional potential clients were tested until all 40 pairs were obtained. Clients were informed of their selection for the second part of the experiment through the phone message in Appendix D. Generally, each client was informed of his or her selection for the study,

and told that their task was to select a real problem that he or she faced and would be willing to discuss with a professional therapist, with the session being videotaped.

Therapists had been instructed that they would be conducting a single interview with each of four college students who had responded to a study entitled "An Analogue Study of Counseling," and who had been instructed by the experimenters to think about and select a real problem that he or she was facing and would be willing to talk about with a professional therapist. The therapists were also informed that the interview would be videotaped and that provisions had been made with the campus mental health services for referral of the client person if the therapist felt it was indicated.

At the time of the interview, the therapist and client completed the paper and pencil rating sheets, including for the client a pre- and post-Problem Pathological Potential Scale and a post-evaluation form, and for the therapist a post-evaluation form.

The interview was introduced by the experimenter operating the videotape equipment, and he or she informed the therapist and client jointly that they would have 50 minutes to talk and that the experimenter would knock on the door of the interview room at the end of 45 and 50 minutes. The interview was videotaped by the experimenter, with the present author accounting for about 25% of the procedure.

Three minute segments were retaped by the author and two collaborators onto master video-tapes and cassette audio-

tapes. The cassettes were used to make typed transcriptions according to the rules for typists described by Gottschalk, Winget, and Gleser (1969) and were checked for accuracy by the experimenter. The segment locations were determined by taking the first 3 minutes of the interview, and the approximate middles of the middle and final thirds of the interview. Detailed rules for determining the segments are found in Appendix E.

Rating Procedures

The rating process was based on standard content analysis procedures and terminology (Berelson, 1952). In the case of most variables, it operated within what has been termed the "classical model" (Marsden, 1971), meaning that what is measured is limited to the semantic and syntactic aspects of communication. Content analysis requires the definition of three ideas for the measurement of each variable, and these are 1) the unit, 2) the category, and 3) the indicator (Berelson, 1952). Each of these aspects of the content analysis process will be elaborated as needed for each variable to be measured.

Units. With the exception of the unit "WORD," the unit for rating each variable was scored separately and marked on the transcript. Units utilized were the "WORD," the "PROPOSITION," the "STATEMENT," the "SEGMENT," and the "INTERVIEW." WORD is essentially self explanatory, and includes hyphenated words as one WORD. PROPOSITION is a more complex unit, and was defined according to Lennard and Bernstein (1969)

as "a verbalization containing a subject and predicate whether expressed or implied" (p. 57). STATEMENT was defined as an uninterrupted sequence of PROPOSITIONS by either therapist or client, and has been defined similarly by many researchers (Butler, Rice, & Wagstaff, 1962; Lennard & Bernstein, 1969; and Matarazzo, Saslow, & Matarazzo, 1956). SEGMENT was defined operationally above as a three-minute section of the interaction, and INTERVIEW is the composite of the three SEGMENTS of an interview session.

Raters. Raters in the study were volunteers from the clinical psychology introductory class, volunteers from the psychology club in the Department of Psychology, and subjects from the subject pool in the psychology department, all groups at the University of Florida. All potential raters were screened and local references obtained to ensure that the confidentiality of the materials would be reasonably protected and to determine the motivation and reliability of the raters. Appropriate tasks were assigned for each person.

The experimenter scored the transcripts for the unit PROPOSITION independently of a random sample of 13% of the transcript scored by a separate rater. The rater was trained according to the training manual for scoring units (see Appendix F). Of over a total of 1802 PROPOSITIONS jointly scored, there were disagreements on 3.9%. PROPOSITIONS were indicated on these transcripts by separation with diagonal marks.

Affective Verbalization. Affective verbalization was scored utilizing three categories, labeled Primary Affect Word, Secondary Affect Word, and Affect Idiom. Each of these was scored separately in the content analysis procedure, but the same general definition holds for all three types of affective verbalization. Generally, an affective statement is one which is "expressive of a subjective reaction of an emotional tone" (Green & Marlatt, 1972), and in the present use, statements of evaluation without affective meaning, or statements referring to intellectual or physiological states were excluded.

Primary Affect Words were scored using the unit: WORD, the category: Primary Affect Word, and the indicator (rule for assigning a unit to the category): inclusion on the list of Primary Affect Words in Appendix H. This list was generated by selecting words which almost always refer denotatively to affective states. Examples are "angry," "sad," "happy," etc. Words on this list are in adjective form, but a word from this list was scored as a Primary Affect Word when it appeared in any of its various parts of speech forms: noun, verb, adjective, or adverb. The rater's task for this affective expression was to compare each WORD of a transcript with this list and to label any WORDs found by recording the WORD's code number. The rating and verification was handled in the same manner as with the unit rating, and the raters were trained using the manual in Appendix G. Three raters were used and in reliability

checks over 769, 353, and 343 PROPOSITIONS respectively, error rates of 0%, .5%, and 0% were obtained.

Secondary Affect Words were scored using the unit: PROPOSITION, the category: Secondary Affect Word, and the indicator: inclusion on the list of Secondary Affect Words in Appendix I. This list was generated by selecting words which refer denotatively to affective states only when modifying the verb "feel" or the verb "sense." Examples are "alert," "slow," "inhibited," etc. All part of speech forms of the words listed in Appendix I were scored. The rater's task for this affective expression was to note the subject's use of the verb "feel" or the verb "sense" in a PROPOSITION or adjacent PROPOSITION modifying it, either directly or by its being understood (as in an answer to a question using one of these verbs). When either verb was noted, the rater then used WORD as the unit, and compared each WORD in the verb's modifier with the list of Secondary Affect Words and labeled any WORDS found by recording the WORD's code number. The same rating and verification process was used, and the rater was trained using the manual in Appendix G. Two raters were used for this task and in reliability checks over approximately 350 PROPOSITIONS each, no errors were obtained.

Affective Idioms were scored using the unit: PROPOSITION, the category: Affective Idioms and Slang, and the indicator: inclusion on the list of Affective Idioms in Appendix J. This list was generated by selecting groups of

words which idiomatically refer denotatively to affective states. Examples are "sick and tired (of)," "get a bang out of," "hair stands on end," etc. Only part of speech changes from the listed forms which maintain the denotatively affective meaning were also scored. The rater's task for this affective expression was to compare each PROPOSITION of a transcript with list J, and to record the code number of that idiom's PROPOSITION. The same rating and verification process was used as in previous rating, and the rater was trained using the manual in Appendix G. Two raters were used, and in reliability checks of approximately 350 PROPOSITIONS each, error rates of 0% and .1% were obtained.

Self References. Self References were scored using the unit: PROPOSITION, the category: Self Reference, and the indicator: "unit is a 'verbal response by a subject which expresses, descriptively or emotively, something about the subject in relation to himself, others, or the world'" (Green & Marlatt, 1972). This indicator was further specified by four rules utilized in training the rater, and are in the training manual for this scoring task (See Appendix G). The rater's task was to consider each PROPOSITION in the transcript and to determine the presence of any pronouns. If a pronoun was found, the PROPOSITION was compared to the scoring rules, and if found to be a Self Reference was labeled by recording the PROPOSITION code number(s) involved. Three raters were used to score this variable and reliability checks over 343, 769, and 353 PROPO-

SITIONS obtained, error rates of 7.0%, 3.1%, and 4.5% respectively.

Therapist Strategies. The three therapist strategy behaviors were scored through a similar use of content analysis. Instruction was defined as a therapist statement or statements within the first 3 minute Segment of the interview in which the therapist communicates at least two of three things: 1) behavior the client is to include (i.e., "talk about your feelings"), 2) behavior the client is to exclude (i.e., "Don't talk exclusively about your thoughts"), and 3) examples of the general classes or areas desired to be talked about (i.e., "YOU might talk about your satisfactions and dissatisfactions, your concerns and confidences"). Instruction was scored using the unit: PROPOSITION, the categories: Instruction-1, Instruction-2, Instruction-3, and the indicator: unit includes defined communication. The rater's task on this rating was to consider each PROPOSITION within the transcript for an initial 3 minute Segment, and to label any Instruction categories found by recording that PROPOSITION's code number(s). Since this rating task was somewhat less precise than the earlier tasks, two non-experimenter raters were used, and the experimenter's rating was to be used to settle disagreements. The raters were trained using the training manual in Appendix G. Only one component of this strategy was found by raters, and no reliability assessment would be meaningful. This was extended to all three segments, and there was still only one found.

Modeling, the second therapist strategy, was defined earlier as the therapist's use of affective verbalization, both with and without self reference. Since every therapist used some affective words, this variable is a rating of how many affective verbalizations and how many affective self references the therapist made. No ratings in addition to those discussed above were necessary.

Reinforcement was scored by raters using the units: WORD and PROPOSITION, the category: Reinforcer, and the indicator: therapist makes one or two word expression of agreement or approval, and specifically uses only those words or expressions listed in Appendix K. Examples are "mmmm-hmm," "yes," "that's nice," etc. The rater's task was to consider all therapist verbalizations, and to label all words or expressions from Appendix K by recording the Statement number of the therapist verbalization. Since the typist is the first "rater" to decide whether or not to place a questionable verbalization in the transcript, the typing by the typist and verification by the experimenter of the transcripts was considered the first stage of a two-stage process of rating reinforcement. No assessment of reliability was made at the first stage. The raters were trained using the training manual in Appendix G. Two raters were used, and over approximately 350 PROPOSITIONS each, error rates of .4% and .7% were obtained.

Following the rating procedures, the necessary counts over various summarizing units and contingent conditions were made to obtain the following measures separately for

client and therapist: total number of WORDS, PROPOSITIONS, and STATEMENTS per segment; total number of Primary Affect Words, Secondary Affect Words, and Affect Idioms per segment; total number of Primary Affect Words, Secondary Affect Words, and Affect Idioms per segment when each occurred within a Self Referent PROPOSITION; number of different types of Instruction categories per segment; number of therapist Reinforcers preceeded by client affective verbalization of any type per segment; number of client affective verbalizations not followed by therapist Reinforcement per segment.

The final measure for affective verbalization for both client and therapist is the sum of the number of Primary Affect Words plus the number of Secondary Affect Words plus the number of Affect Idioms per Segment divided by the total number of PROPOSITIONS in the segment being computed and given that only one affective expression per PROPOSITION has been counted in the sum. This gave a percentage score after being multiplied by 100, and is called the client (or therapist) affective verbalization score for Segment X. The total affective verbalization score for the interview is the sum of all affective expressions in the interview divided by the number of PROPOSITIONS in the interview. The same procedure was used for computing the affective self reference scores.

The final measure for the Instruction strategy is "yes" versus "no" as to use of that strategy according to the definition. The final measure for the Modeling strategy is

the therapist affective verbalization score as computed above. The final measure for the Reinforcement strategy is most easily expressed as a formula which recognizes that Reinforcement might either encourage or discourage affective verbalizations:

$$R_{ij} = [(r_w - r_o)/(r_w + r_o)](x/8)(100),$$

where R_{ij} is the Reinforcement variable score for client i in segment j ; r_w is the number of times the therapist used a verbal Reinforcer immediately after a client finished a statement which contained an affective verbalization; r_o is the number of times the therapist did not Reinforce an affective verbalization; and x is a value equal to the larger of the two r 's (r_w or r_o). (The $x/8$ factor attempts to correct the Reinforcement score for small numbers of reinforcers, which is an inference from Waskow's 1962 study.) The total Reinforcement score for the interview is the mean of the three Segment scores.

CHAPTER 4 RESULTS

Results are presented in terms of the three groups of hypotheses discussed above and labeled: client verbalization and therapist strategies, compatibility and client sex, and client verbalization and session outcome. When one analysis is used for more than one hypothesis, it is presented to the extent needed to examine the results for that hypothesis. When it is apparent that a result is markedly different from the hypothesis and an alternative hypothesis is evident by virtue of being the converse of the predicted relationship, that alternative hypothesis is presented in this section with the analyses used to examine it.

Client Verbalization and Therapist Strategies

The first group of hypotheses (numbers 1 through 4) dealt with therapist strategies and client affective verbalization and client affective self reference. Each of these variables was measured as described in Chapter 3. With respect to the therapist strategies, no full instances of the Instruction strategy were found, and only one type 3 component of that strategy (see Appendix G) was scored in the rating of all therapist responses. Consequently, this variable was dropped from further analyses. Also, although ther-

apist statements were scored for self references as part of the Modeling strategy measurement, only 31 therapist affective self references were found in all, making the inclusion of that variable meaningless, and it was eliminated from further analysis. This means that the strategy Modeling is equivalent to therapist affective verbalization in all analyses. Scores for the other strategies and for the client variables appeared adequate.

Hypothesis 1 predicted that each therapist would use one or more of the strategies, and was informally analyzed since some of the strategies were not dichotomous. Several factors suggest that this hypothesis was not supported. First of all, the Instruction strategy was clearly absent, as was the use of modeling of affective self reference behavior. Second, the frequency of modeling of affective verbalization behavior was at or below client frequencies in many cases and was generally low for therapists, inconsistent with our expectation of a Modeling strategy. Third, the Reinforcement behavior of therapists often did not involve a discriminant use of reinforcers, but rather relatively high rates of reinforcing all client verbalization within a particular segment. Overall, therapists did not appear to use the defined strategy behaviors systematically, and each therapist clearly did not use at least one strategy as there were some therapists who did not approach using any of the strategies.

Hypothesis 2 predicted that both client affective verbalization and client affective self reference would increase across the session. This was analyzed by checking for a

significant segment effect in an analysis of variance. This was part of a larger analysis presented in the Group 2 hypotheses. For both client affective verbalization (see Table 1) and for client affective self reference (see Table 2), there was no significant segment effect, and in both cases, the trend was for the first segment to be the highest of the three segments and for the second segment to be lowest.

Hypotheses 3 and 4 predicted that there would be a significant positive relationship between the greater use of a therapist strategy and larger increases in client affective verbalization and client affective self reference. Since the therapist strategy variables occur within the same interactions which also provide the data for the client measures, statistics presuming independence were inappropriate. Consequently the associations predicted to occur in the data were analyzed by examining the correlations in the data. To determine the significance of a correlation for interpretation purposes, the correlation was compared to the null hypothesis that the correlation equals zero, with alpha = .05 for rejecting the null hypothesis. A correlation was defined as approaching significance if its significance level fell below .09. Unless otherwise noted correlations are Pearson r 's. Spearman correlation coefficients were used in instances where comparisons were to be made which involved class variables (i.e., compatibility, sex of client, and sex of therapist).

As indicated above, some strategies did not occur in

TABLE 1
ANOVA-1 SUMMARY TABLE
COMPATIBILITY X CLIENT SEX X SEGMENT

SOURCE	SUM OF SQUARES	df	MEAN SQUARE	F RATIO	P
1 BETWEEN SUBJECTS	168.572	39			
2 COMPATIBILITY	4.798	1	4.798	1.133	NS
3 CLIENT SEX	.901	1	.901	.213	NS
4 COMPATIBILITY X CLIENT SEX	10.365	1	10.365	2.447	NS
5 SUBJECTS WITHIN GROUPS	152.508	36	4.236		
6 WITHIN SUBJECTS	271.001	80			
7 SEGMENT	3.566	2	1.783	.513	NS
8 COMPATIBILITY X SEGMENT	4.915	2	2.457	.707	NS
9 CLIENT SEX X SEGMENT	10.417	2	5.208	1.499	NS
10 COMPATIBILITY X CLIENT SEX X SEGMENT	1.874	2	.937	.270	NS
11 SEGMENT X SUBJECTS WITHIN GROUPS	250.229	72	3.475		
12 TOTAL	439.573	119			

Note: Dependent variable is Client Affective Verbalization.
NS p > .05

TABLE 2
ANOVA-2 SUMMARY TABLE
COMPATIBILITY X CLIENT SEX X SEGMENT

SOURCE	SUM OF SQUARES	df	MEAN SQUARE	F RATIO	P
1 BETWEEN SUBJECTS	196.345	39	5.453	1.155	NS
2 COMPATIBILITY	5.453	1	.691	*1.46	NS
3 CLIENT SEX	.691	1	20.263	4.293	*
4 COMPATIBILITY X CLIENT SEX	20.263	1	20.263	4.293	
5 SUBJECTS WITHIN GROUPS	169.938	36	4.720		
6 WITHIN SUBJECTS	223.595	80			
7 SEGMENT	8.932	2	4.466	1.596	NS
8 COMPATIBILITY X SEGMENT	1.308	2	.654	.234	NS
9 CLIENT SEX X SEGMENT	8.730	2	4.365	1.560	NS
10 COMPATIBILITY X CLIENT SEX X SEGMENT	3.167	2	1.583	.566	NS
11 SEGMENT X SUBJECTS WITHIN GROUPS	201.455	72	2.798		
12 TOTAL	419.940	119			

Client Tests for Simple Compatibility and
Sex Effects after Significant Interaction

1 COMPATIBILITY @ C=1 (MALE)	2.315	1	2.315	.490	NS
2 COMPATIBILITY @ C=0 (FEMALE)	23.401	1	23.401	4.958	*
3 CLIENT SEX @ COMPATIBILITY =1 (HIGH)	14.337	1	14.337	3.037	AP
4 CLIENT SEX @ COMPATIBILITY =0 (LOW)	6.617	1	6.617	1.402	NS

Note: Dependent variable is Client Affective Self Reference.

* P < .05 NS P > .10 AP P < .10

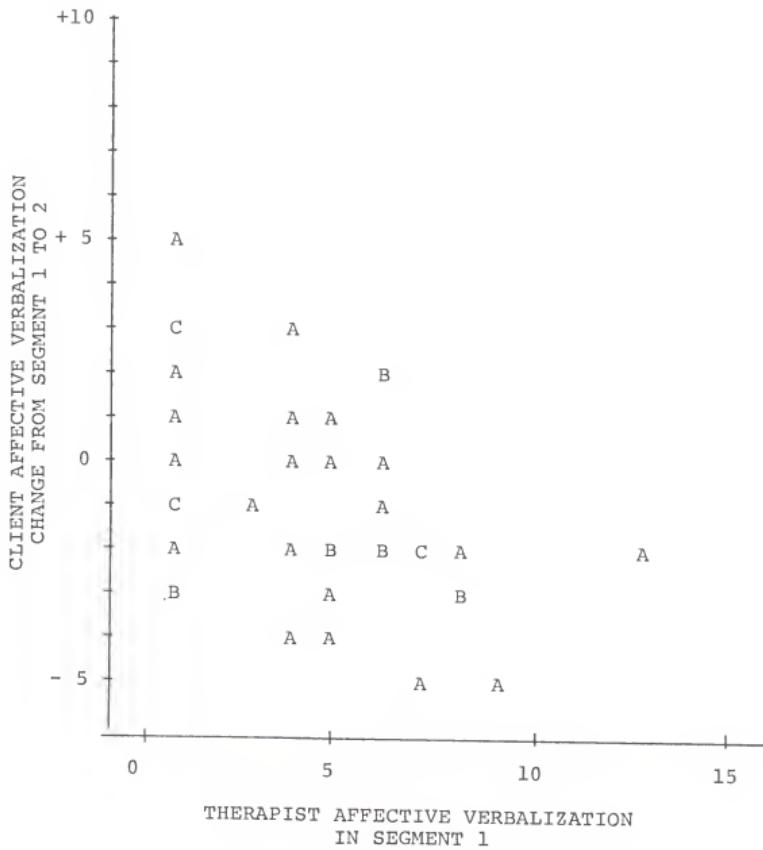
this sample, and this leaves Modeling and Reinforcement to be considered. The analyses of hypotheses 3 and 4 for Modeling will be presented first.

Since these hypotheses are dealing with changes in client behaviors, the Modeling score was correlated with scores representing the change of a client's behavior. Accordingly, correlations were computed between the various segment levels of therapist affective verbalization and the change scores for the two client measures across various parts of the interview (see Table 3). For client affective verbalization, one correlation was significant, this between therapist affective verbalization in the first segment and the change in client affective verbalization from segment 1 to 2, but in the opposite to predicted direction ($r = -.44$, $p = .004$). The correlation between therapist affective verbalization in the first segment and client affective verbalization change from the first segment to the last approached significance, again in the opposite to predicted direction, ($r = -.29$, $p = .067$). Therapist affective verbalization correlations with client affective self reference change scores showed the same phenomenon with both correlations significant ($r = -.46$, $p = .003$; $r = -.41$, $p = .009$). A scatter-plot of the segment 1 therapist affective verbalization by segment 1 to 2 client affective verbalization change scores shows a clear association between higher therapist scores and negative client change scores and between lower therapist scores and positive changes (see Figure 1). This suggests the need for a clearer under-

TABLE 3
CORRELATIONS OF MODELING AND CHANGE SCORES

SEGMENT CHANGE	MODELING: THERAPIST AFFECTIVE VERBALIZATION BY SEGMENT			
	1	2	3	Total
CLIENT AFFECTIVE VERBALIZATION				
1 to 2	-.44**	.04	-.01	-.13
2 to 3	.11	-.11	.07	.01
1 to 3	-.29	-.08	.06	-.11
CLIENT AFFECTIVE SELF REFERENCE				
1 to 2	-.46**	.08	-.08	-.14
2 to 3	.04	-.17	.01	-.08
1 to 3	-.41**	-.11	-.06	-.23

** p<.01



Legend: A = 1 observation; B = 2 observations, etc.

SCATTER PLOT OF A THERAPIST
SCORE BY A CLIENT SCORE
FIGURE 1

standing of the nature of the affective verbalization scores and their relationships.

Intercorrelations were run between all client and therapist affective expression scores, a total of 12 variables, and many highly significant correlations were present. (See Table 4 for specifics of the following discussion of effects.) Each segment level of client affective verbalization is highly correlated with its respective self reference variable (r 's = .95, .93, .85). The affective verbalization levels are not, however, correlated with each other. Of the self reference levels, only segment 1 and 2 are correlated, but only modestly (r = .32). Therapist affective verbalization in segment 1 is strongly correlated with both client measures in segment 1 (r = .66 and .67) and with no other segment levels of either. Therapist affective verbalization in segment 3 is modestly correlated with all levels of client affective self reference only (r 's = .34, .32, .40, .38), as well as being correlated with therapist affective verbalization in segments 1 and 2, (r 's = .58, .34), which are not correlated with each other. The total scores for the therapist measure and both client measures are modestly to highly correlated with each other and all affective verbalization segment variables (range of r 's = .32 to .92), with the exceptions of total client affective verbalization with therapist affective verbalization in segment 2 (r = .28, p = .076) and the total therapist measure with client affective self reference in segment 3 (r = .27, p = .089), both of which correlations approach significance.

TABLE 4
AFFECTIVE MEASURES INTERCORRELATED:
CORRELATIONS AND PROBABILITIES

VARIABLE AND SEGMENT NUMBER	VARIABLE AND SEGMENT NUMBER									
	CAV			CASR			TAV			
1	2	3	T	1	2	3	T	1	2	3
CAV 2	.20									
	.207									
CAV 3	.17	-.02								
	.288	.877								
CAV T	.75	.56	.58							
	.001*	.001*	.001*							
CASR 1	.95	.24	.17	.75						
	.001*	.140	.280	.001*						
CASR 2	.28	.93	.01	.60	.32					
	.083	.001*	.965	.001*	.045*					
CASR 3	.18	.11	.85	.59	.22	.13				
	.265	.495	.001*	.001*	.161	.405				
CASR T	.69	.59	.45	.92	.77	.69				
	.001*	.001*	.003*	.001*	.001*	.001*				

TABLE 4-continued

TAV 1	.66 .001*	.09 .585	.24 .126	.55 .001*	.67 .001*	.10 .526	.17 .298	.48 .002*
TAV 2	.21 .197	.26 .109	.09 .566	.28 .076	.24 .141	.32 .047*	.11 .504	.32 .042*
TAV 3	.34 .029*	.32 .046*	.39 .011*	.52 .001*	.38 .015*	.27 .096	.31 .052	.42 .006*
TAV T	.53 .001*	.35 .026*	.36 .024*	.63 .001*	.55 .001*	.35 .027*	.27 .089	.55 .001*
							.73 .001*	.60 .001*
								.89 .001*

Note: The upper number of each pair is the correlation coefficient. The lower number is the probability that the null hypothesis ($r = 0$) is true.

Key: CAV = Client Affective Verbalization

CASR = Client Affective Self Reference

TAV = Therapist Affective Verbalization

1 = Segment 1

2 = Segment 2

3 = Segment 3

T = Total interview.

* $P < .05$

The lack of correlation within segment levels of each of the client measures is consistent with the lack of a segment effect in the earlier analyses, and the high correlations between so many variables suggests an alternative hypothesis. This is that clients are influencing the therapists' frequencies of use of affective verbalizations, or equivalently, that in at least segment 1, therapists are using a following style which results in a high correlation between client and therapist affective verbalization scores. Two analyses were completed to examine these alternative hypotheses: cross-lagged panel correlations and tabulating therapist and client use of the same affective expressions.

Cross-lagged panel correlation (Campbell & Stanley, 1963) would predict that the "causal" force (if other than a separate underlying factor) in changing affective verbalization will have a higher correlation between its earlier measurement and the "effect" factor's later measurement than the correlation between the effect's earlier measurement and the cause's later measurement. In all three cases to consider given three time periods (segments 1 to 2, 2 to 3, and 1 to 3), the correlation between the earlier client variable and later therapist variable is larger than the correlation between the earlier therapist variable and the later client variable (see Table 5 of cross-lagged panel correlations).

To attempt further clarification of the notion that therapists might be "following" client affective verbalization, ratings from a sample of 12 dyads (10% of the total segments) were examined to see what words the therapist in

TABLE 5
SUMMARY OF CROSS-LAGGED PANEL CORRELATIONS

CLIENT OR THERAPIST ^a MEASURE AS "CAUSE" ^b	TIME LAG EXPRESSED AS SEGMENT DIFFERENCE		
	SEGMENT 1 AND 2	SEGMENT 2 AND 3	SEGMENT 1 AND 3
CLIENT AFFECTIVE VERBALIZATION			
THERAPIST	.09	.09	.24
CLIENT	.21	.32*	.34*
CLIENT AFFECTIVE SELF REFERENCE			
THERAPIST	.10	.11	.17
CLIENT	.24	.27	.38*

Note: No correlation pairs are significantly different using $p < .05$ as criterion in a one-tailed test.

a Therapist measures are all Therapist Affective Verbalization scores.

b "Cause" indicates that the measure for that person is for the earlier of the two time periods.

* $p < .05$

each pair had used for affective verbalization scores and then to determine whether the client had used that word, and if so whether before or after the therapist response and whether immediately or not. Immediately is defined here as being within the first statement following or preceding the one containing the affective verbalization.

The sample was chosen randomly, with the stipulation that each therapist must be chosen once and that there be four dyads chosen from each segment. Table 6 summarizes the results of the tabulation. It can be seen from the table that although the total number of responses in each segment does not vary greatly, the distribution of the responses in terms of their relationship to client responses using the same word or phrase is quite different. In segment 1, therapists could be described as "following" the client response. In segment 2, clients could be described as "following" the therapists. In segment 3, there is no apparent relationship between the particular affective words and phrases used by the therapists and clients. The sample is of course small, and should be interpreted conservatively, but suggests a trend toward differential leading and following therapist styles in different segments.

Overall, it must certainly be concluded that the data clearly disconfirm the third and fourth hypotheses, with respect to the Modeling strategy.

Reinforcement is the second strategy to be considered in hypotheses 3 and 4. Here, correlations were obtained between segment levels of the Reinforcement variable and cli-

TABLE 6
TABULATION OF FOLLOWING VERSUS
LEADING THERAPIST RESPONSES

TYPE OF RESPONSE	SEGMENT		
	1	2	3
IMMEDIATELY ^a AFTER CLIENT	0	0	0
DELAYED ^b AFTER CLIENT	5	0	0
IMMEDIATELY BEFORE CLIENT	0	4	0
DELAYED BEFORE CLIENT	0	2	1
NO SAME CLIENT RESPONSE	0	2	5
TOTAL	5	8	6

Note: Responses are therapist affective verbalizations, and tabulations reflect the type of relationship to client's use of the same word or phrase within a given Segment of an interview.

a "Immediately" is defined as the statement right before or right after the statement containing the affective expression.

b "Delayed" is defined as any position within the same Segment other than "immediately" before or after.

ent change scores. Modest, though significant, negative correlations were observed between some variable pairs (see Table 7). Reinforcement in the first segment was negatively correlated with client affective verbalization change from the second to the third segment and from the first to the third segments (r' s = -.35 and -.44), suggesting that greater and more discriminating use of verbal reinforcement of client affective verbalization in the first segment was related to decreases in that client measure from segment 1 to 3 and from 2 to 3. This was also true for client affective self reference (r' s = -.53, -.46). Second segment Reinforcement was negatively correlated with change scores for both client measures (affective verbalization and self reference) from segment 2 to 3 (r' s = -.32 and -.51). Total Reinforcement was also negatively correlated to both measures from segments 1 to 3 (respectively r' s = -.31, -.35) and to affective self reference from segments 2 to 3 (r = -.50).

To examine the possible effects of simple number of reinforcers or quantity of verbalization, these variables were also correlated with the change scores (see Table 8). For client affective verbalization, number of reinforcers followed the same pattern as the Reinforcement variable, though at a lower correlation coefficient level such that only reinforcers in the first segment with client change from segments 1 to 3 and total reinforcers with change from 1 to 3 were significant negative correlations (r' s = -.33, -.33). Client affective self reference showed exactly the same pattern with the number of reinforcers as with the Reinforce-

TABLE 7
CORRELATIONS OF REINFORCEMENT STRATEGY
AND CLIENT CHANGE SCORES

CHANGE BY SEGMENTS	THERAPIST REINFORCEMENT STRATEGY BY SEGMENT			
	1	2	3	TOTAL
CLIENT AFFECTIVE VERBALIZATION				
1 to 2	-.04	.12	-.08	.01
2 to 3	-.35*	-.32*	.16	-.29
1 to 3	-.44**	-.25	.10	-.31*
CLIENT AFFECTIVE SELF REFERENCE				
1 to 2	.12	.28	.02	.20
2 to 3	-.53**	-.51**	.05	-.50**
1 to 3	-.46**	-.29	.07	-.35*

* $p < .05$

** $p < .01$

TABLE 8
CORRELATIONS BETWEEN NUMBER OF
REINFORCEMENT RESPONSES AND
CLIENT CHANGE SCORES

SEGMENT CHANGE	NUMBER OF THERAPIST REINFORCEMENTS BY SEGMENT			
	1	2	3	TOTAL
CLIENT AFFECTIVE VERBALIZATION				
1 to 2	-.01	-.03	-.11	-.05
2 to 3	-.28	-.20	-.13	-.25
1 to 3	-.33	-.26	-.26	-.33*
CLIENT AFFECTIVE SELF REFERENCE				
1 to 2	.11	.11	.08	.12
2 to 3	-.45**	-.34*	-.28	-.43**
1 to 3	-.38*	-.26	-.22	-.34*

* $p < .05$

** $p < .01$

ment variable, though with somewhat lower correlation coefficients.

An important incidental finding of these analyses was that, with the exception of Reinforcement in the third segment, all the Reinforcement variables are correlated with all segment levels of number of reinforcers, number of statements in a segment, and number of therapist PROPOSITIONS in a segment (the closest measure available to quantity of verbal output). (See Table 9 on correlations of raw scores and Reinforcement measures.)

Overall, the data did not support the third and fourth hypotheses with respect to the Reinforcement strategy, and suggested an opposite to predicted trend.

The analyses of the Group 1 hypotheses, then, have generally disconfirmed hypotheses 1 through 4, with support being demonstrated for an alternative hypothesis regarding the direction of influence between therapist and client.

Compatibility and Client Sex

The primary focus of the hypotheses in Group 2 is hypotheses 5a and 6a predicting interaction effects of compatibility and client sex with therapist strategies and client affective expression change scores. The examination of these hypotheses is in some ways a moot point since as stated, these hypotheses relied on supporting hypotheses 2, 3, and 4 above. In order to assess the general relationships predicted by these hypotheses, however, plots of the variables' relationships of interest were made and examined

TABLE 9
CORRELATIONS BETWEEN NUMBER OF
REINFORCEMENT RESPONSES AND
REINFORCEMENT STRATEGY

NUMBER OF THERAPIST REINFORCEMENTS BY SEGMENT	THERAPIST REINFORCEMENT STRATEGY BY SEGMENT			TOTAL
	1	2	3	
1	.54**	.53**	.10	.57**
2	.49**	.69**	.28	.67**
3	.43**	.53**	.36*	.59**
TOTAL	.58**	.68**	.28	.71**

* $p < .05$

** $p < .01$

for effects. (For examples, see Appendix L.) Generally, it was observed that the plots of mean scores for various variable groups suggested support for many complex interactions, but of the ones of those which could be tested, only the one interaction from the analyses of variance reported below was significant. The variability within each cell of the data for any of these plots is quite large, and these data must be approached very cautiously, and with the assumption that all of the effects are statistically non-significant.

Interpretation is further complicated by what appears to be a lack of independence of Modeling, Reinforcement, compatibility, client sex, and level of client affective verbalization, with an underlying factor of what appears to be a high-low dimension on level of client affective verbalization in segment 1. In other words, female clients tended to be higher than males overall, especially when in the high compatible group. When high Modeling dyad clients or high Reinforcement dyad clients are separated from the total sample, they also appear more likely to be these high compatible female clients than any others. This implies that the creation of class variables from the continuous strategy measures (which was done to create plots) is questionable since it is likely to create groups which are similar in unknown ways with respect to their relationship with the dependent measures, while their class labels would suggest we are dealing with different variables. In other words, splitting the sample on the basis of the Modeling strategy, for

example, means that therapist affective verbalization scores, determine the groups. These groups, however, also split unevenly with respect to client affective verbalization scores. If the scores were determined independently, then we could interpret that as a significant effect. In the present case, it only means there are effects of several variables contained in any examination of the variable "Modeling."

Examination of effects of compatibility and client sex without reference to therapist strategy could be appropriately handled by analysis of variance. The normalities of the distributions of client affective verbalization and client affective self reference were plotted and a square root transformation for scores including low scores was applied to analysis of variance data as suggested by Kirk (1968). (For examples, see Appendix M.) The transformation applied was

$$x' = (x)^{1/2} + (x + 1)^{1/2}.$$

Four analyses of variance were computed. The first two were split-plot factorial designs with two between block treatments (compatibility and client sex) and one within block treatment (segment or repeated measurements), using client affective verbalization as the dependent measure in analysis of variance 1 and client affective self reference in analysis of variance 2. The second two analyses were 2 X 2 factorials (compatibility and client sex), using client total affective verbalization as the dependent measure in analysis of variance 3 and client total affective

self reference in analysis of variance 4.

Hypothesis 5b(1) was disconfirmed by the non-significant compatibility X segment effect in analysis of variance 1 (see Table 1), indicating that compatibility alone did not account for changes in client affective verbalization over the session. Hypothesis 5b(2) predicted this same relationship for client affective self reference and was also disconfirmed in analysis of variance 2 (see Table 2). Hypothesis 5b(3) predicted that compatibility would show a significant effect for client total affective verbalization, and hypothesis 5b(4) made this prediction for client total affective self reference. Neither hypothesis was supported as indicated by analysis of variance 3 in the former case (see Table 10) and by analysis of variance 4 in the latter case (see Table 11). This effect did approach significance, however, in this last analysis, suggesting that compatibility alone has some influence on the total frequency of clients' use of affective self reference.

The analysis of these hypotheses for client sex was parallel to the analyses for compatibility. Hypothesis 6b(1), predicting that female clients but not male clients would increase across the session, was analyzed by the client sex X segment effect in analysis of variance 1 for client affective verbalization (see Table 1), and 6b(2), in analysis of variance 2 for client affective self reference (see Table 2). Neither hypothesis was confirmed. Hypotheses 6b(3) and 6b(4) predicted that female clients would be higher than males in total affective verbalization

TABLE 10
ANOVA-3 SUMMARY TABLE
COMPATIBILITY X CLIENT SEX

SOURCE	SUM OF SQUARES	df	MEAN SQUARE	F RATIO	P
1 COMPATIBILITY	19.072	1	19.072	2.90	NS
2 CLIENT SEX	2.601	1	2.601	.40	NS
3 COMPATIBILITY X CLIENT SEX	11.990	1	11.990	1.83	NS
4 ERROR	236.500	36	6.569		
5 TOTAL	270.163	39			

Note: Dependent variable is Client Total Affective Verbalization.

NS $P > .05$

TABLE 11
ANOVA-4 SUMMARY TABLE
COMPATIBILITY X CLIENT SEX

SOURCE	SUM OF SQUARES	df	MEAN SQUARE	F RATIO	P
1 COMPATIBILITY	22.052	1	22.052	3.69	AP
2 CLIENT SEX	1.005	1	1.005	.17	NS
3 COMPATIBILITY X CLIENT SEX	19.740	1	19.740	3.30	AP
4 ERROR	215.085	36	5.974		
5 TOTAL	257.882	39			

Note: Dependent variable is Client Total Affective Self Reference.

NS $P > .05$

AP $P < .10$

and affective self reference respectively. These hypotheses were tested in analyses of variance 3 and 4 respectively, and were not supported (see Tables 10 and 11).

Though not stated as a specific hypothesis, the interaction effect of compatibility X client sex X segment for client affective self reference was significant (see Table 2), though it was not significant for client affective verbalization (see Table 1). Simple main effects tests on the significant interaction (see Table 2) indicated that compatibility was a significant effect only when considering female clients. Sex of client approached being a significant effect when considering clients in highly compatible dyads only.

Client Verbalization and Session Outcome

The third group of hypotheses deals with examining the relationship between the client verbalization measures and the measures of session outcome. Hypothesis 7a predicted that for both client affective verbalization and client affective self reference there would be a significant correlation with client evaluation, therapist evaluation, and changes in pre- to post-session change scores on the problem rating scale. Of these only two correlations were significant, and they partially confirmed the prediction. Total client affective verbalization and this verbalization in the second segment were correlated with therapist evaluation ($r = .34$, $p = .031$; $r = .37$, $p = .020$). The relative independence of client affective verbalization in seg-

ment 2 from the multiple variables correlating with it in segment 1 makes this finding particularly interesting, since it raises the possibility that therapists do assess the helpfulness of an interview in terms of client affective expression. This is only in the context of other variables, which were not identified in this study, as the variance accounted for in those correlations is less than 14%.

Part b of hypothesis 7, predicting an improvement in the above correlation when considering compatibility, was examined by computing the correlation of client affective verbalization total and for segment 2 with therapist evaluation separately for each level of compatibility. This hypothesis was supported as the correlations for high compatible dyad clients are $r = .697$ and $.594$, while in the low compatible clients, these correlations are $.413$ and $.221$ respectively. Both differences are significant at the .05 level using a one-tailed test.

Exploratory Analyses

The significance of compatibility and client sex has been supported in this study, and additional exploratory analysis was undertaken. One aspect of this was to explore further possible associations in the data between compatibility, sex of client, and sex of therapist. This was done through the computation of Spearman correlations with all affective verbalization measures, the Reinforcement measures, affective verbalization change scores, and the three outcome measures. Two modest correlations were significant, between

sex of therapist and client affective self reference in segment 1 ($r = .32$) and Reinforcement in segment 1 ($r = -.40$). The negative direction of the correlation indicated that the association was between female therapist and higher levels of client affective self reference in the second segment (or male therapist and lower Reinforcement measures). Sex of therapist approached significance in the same direction with client affective verbalization in segment 1 ($r = -.27$, $p = .088$), total client affective self reference ($r = -.28$, $p = .083$), and total Reinforcement ($r = -.31$, $p = .053$). Sex of therapist approached significance in the opposite direction on client affective self reference change from first to last segment ($r = .30$, $p = .057$), indicating that male therapists were somewhat more associated with higher overall change in client affective self reference scores than female therapists. Sex of client approached correlation with client first segment affective verbalization and self reference ($r = -.28$, $p = .078$; $r = -.29$, $p = .069$), with female clients tending to be associated with higher scores.

The second exploratory analysis was to examine the components of the compatibility score. Since the interview sample includes only individuals in certain matched pairs, the significance of any correlations are very suspect for interpretation, but may suggest directions for further exploration of the compatibility dimension. All basic compatibility measures were computed and were correlated with all affective verbalization measures including change scores, Reinforcement measures, and outcome measures. Several cor-

relations were significant, though no particular patterns were apparent. All compatibility variables had at least one significant correlation except for reciprocal compatibility on Inclusion and Affection and interchange compatibility on Inclusion. All significant correlations with affective verbalization measures were for second segment measures and with originator compatibilities. Originator compatibilities for inclusion and for affection were negatively correlated with therapist affective verbalization (r 's = -.35, -.34) and originator compatibility for control was correlated with client affective self reference (r = .34). Reciprocal compatibility for control was correlated with client affective verbalization change from segment 2 to 3 (r = -.37), and interchange for affection is correlated negatively with client affective self reference change from segments 2 to 3 and from 1 to 3 (r 's = -.36, -.32). Interchange for affection is also correlated positively with Reinforcement in segment 1, 2, and total (r 's = .38, .34, and .37). Originator compatibility for control is correlated positively with total Reinforcement (r = .32). Interchange for control is correlated positively with the Problem Pathological Potential Scale change score (r = .31).

CHAPTER 5 DISCUSSION

The primary focus of this study was on defining client affective verbalization and client affective self reference, on defining therapist strategies which previous research has indicated are effective in increasing the above client measures across an analogue interview, and on examining actual therapists in experimental interviews with respect to their use of these strategies and the effects resulting from the use of these strategies. Results of the study indicate that the defining functions of the study appeared adequate, but that therapists in this sample do not use the defined strategies, in any systematic form at least, and that the client measures do not change consistently across the interviews.

Although there was a lack of significant changes in client scores across the interview, there was a trend toward changes being important in accounting for the variance in the sample. The variation in segment changes was large within groups of the treatment blocks and suggests that important variables were not identified.

Not only did the results not support therapists as utilizing the predicted strategies, but there was also evidence suggesting that clients are more in control of the amount of affective verbalization than are therapists. This

was most marked in the first segment where therapists used a following style, with a trend toward therapists assuming a more directive role in the second segment. Additional investigation of this phenomenon might prove helpful in clarifying these issues.

It is possible that in this sample a ceiling effect occurred where clients' affective verbalization rates were so high from the beginning of the interview that it did not necessitate therapists using strategies to increase that frequency. The data indicates that the rates were substantial, and that therapist interventions of higher modeling or reinforcement behaviors could only have inhibited client behaviors. Well controlled and highly specific strategies, as used in previous research with confederate therapists, might increase rates even in this sample of clients, but such an increase is unlikely when therapists use relatively unspecific strategies and when they are possibly content with the level of client affective verbalization as emitted. The client sample in this study was similar to that used in previous research (college students), but given the differences in inclinations of the therapists not to work toward increasing reasonably high rates of verbalization, a less articulate population of clients may have elicited different strategies from these same therapists. The relationship between this study and previous research on these therapist strategies might be clarified by another study utilizing such a sample of clients or perhaps more easily, by utilizing confederate therapists in the research format of the present study.

Analyses of the group 2 hypotheses resulted in one significant effect, the interaction of compatibility, client sex, and segment, indicating that in terms of segment changes, the compatibility manipulation was effective only for female clients. This is consistent with the literature cited earlier which also demonstrated this effect (Mendelsohn & Rankin, 1969).

Correlations between therapist evaluation and client affective verbalization supported the contention that therapists believe client affective verbalization is important to treatment outcome. Other outcome measures, client evaluation and problem rating scale change scores, were not related to client affective expression measures. Limited ranges of scores for these two outcome measures were a problem and more adequate measures should be used in future research.

Various analyses and correlations offer some help in the problems of designing further studies to investigate the implications of the present data. The large error variance found so often in the analyses suggests that 1) this must be expected and only very powerful effects can be examined, 2) the flexibility of the interview situation must be restricted in order to provide better control, or 3) a broader range of clients should be studied. The other alternative is to consider more variables, but this is probably prohibitive on the one hand in terms of investment of resources or on the other, in terms of an N that is too small for so many variables.

There is a danger inherent in increasing control in the

present type of study. On the well-controlled end of the spectrum, there are the studies which generated the literature used to define the therapist strategies and the dependent variables. The dependent variables seemed adequate, but the "therapist strategies" were apparently foreign to actual therapists in a similar situation! On the other hand, the present study was, by design, loose with respect to these variables, and consequently is very limited in its richness for interpretation or generalizability, vis-a-vis theoretical precision. A compromise between these two issues might be a study similar to the present one, with more attention to the construct validity of the variables and some assurance, by manipulation of therapist or client, that the issue of strategies to increase client affective verbalization is clearly defined in the data.

The present data are also helpful in demonstrating associations between affective verbalization and variables such as client sex, therapist sex, compatibility, quantity of verbalization of all types, inconsistency of change across standard segments, and other affective verbalization measures. Each of these must either be controlled or measured as a variable in subsequent research if it is to result in more significant, interpretable findings.

This appears particularly true of compatibility, since not only did the compatibility manipulation seem reasonably sound (though not significant overall), but the calculated compatibility components also received some support as potentially related to the other variables of the study. Fur-

ther investigation of this would require either separate samples matched on each type of compatibility component, or an adequately-sized group constructed randomly without regard to compatibility, and then analyzed in terms of compatibility measures. Economy for investigating more than one type of compatibility probably requires the latter approach.

Conclusion

This study grew out of a review of psychotherapy literature as conceptualized within a general communications model. The model was translated into the terms of research which has considered therapist behaviors and their relationships to clients' use of affective language. A study was designed for testing these relationships in a sample of clients similar to these previous studies, but using a sample of therapists which were different in not being confederates and also in being practicing, professional psychotherapists. This study was also different in including the variables compatibility and client sex as independent variables.

This study's contributions appear to lie in two areas. The first area is in its development of methodological tools for the relatively objective measurement of client and therapist use of words and phrases denoting affective experience both with and without reference to the self. Previous research which has provided similar tools has either maintained significantly subjective elements, failed to retain materials for use on other studies, or failed to adapt materials to

the specific purpose of measuring the use of such language by clients and therapists.

The second area of contribution is in applying the above methodology to the examination of a group of variables in a sample of analogue psychotherapy interviews. The variables considered had been found in previous research to have certain relationships to each other, but these relationships were generally absent in this study. Two significant relationships were demonstrated. Compatibility was found to be effective under some conditions for female clients, but not for male clients. Client affective verbalization in the second segment and for the total interview were found to be significantly correlated with therapist evaluation, which provided modest support for the validity of the client affective measure as an indicator of some important processes in the interview. Therapist strategy variables were either found not to be utilized by therapists in the present sample, or to result in inhibitory effects, with clients more in apparent control of the frequency of affective verbalization in the session.

Suggestions for future research are made, and argue for the use of more control than in the present study. Caution is also made, however, for such strict control that the research loses its relevance to applied practice.

APPENDICES

APPENDIX A
THERAPIST POST-SESSION EVALUATION FORM

Name: _____

Please answer the following questions as candidly as you can. Feel free to make additional comments where you wish to. Circle one of the alternatives.

1. Did you like the person whom you interviewed?

very much slightly not at all

2. If this interview had occurred in the context of your clinical practice, would you:

want to refer the client unsure continue to see client

3. Do you think this experience was valuable for the client?

very much slightly not at all

4. Do you think your client is now better able to solve or live with his or her problem?

yes unsure no

Additional comments:

APPENDIX B
CLIENT POST-SESSION EVALUATION FORM

Name: _____

Your participation in this experiment is now concluded. Please answer the remaining few questions as candidly as you can. Feel free to make additional comments where you wish to. Circle one of the alternatives.

1. Did you like the person who interviewed you?

very much slightly not at all

2. Did you enjoy the experience of being interviewed?

very much slightly not at all

3. Do you think the experience was valuable?

very much slightly not at all

4. Did it help you to solve, or live better with, your problem?

yes unsure no

5. Do you think participating in this experiment has made you more likely to seek professional help should the occasion ever arise?

yes unsure no

Additional comments:

APPENDIX C
NOTICE FOR POTENTIAL CLIENT SUBJECTS

An Analogue Study of Counseling

We are conducting a study about counseling and psychotherapy, and need a number of subjects to be clients who will talk with therapists. The first part of the study involves taking some paper-and-pencil tests, and only a part of the subjects who take the tests will go on to the second part of the study. The first part of the study will take about 30 minutes, and you will receive 1 half-hour credit. The second part of the study, if you are selected, will take about an hour-and-a-half, and you will receive 3 half-hour credits. If you would like to participate in this study, please sign up below for only one of the testing times.

APPENDIX D
VERBATIM TELEPHONE CONTACT
FOR INFORMING SELECTED CLIENTS

We're calling about the Psychology Study you're in. Your record was selected to be matched to a person in the other group. Now we would like to arrange a time for you and the other person to continue in the study. Your part of the study is to think about and select a real problem that you face. It should be something that you don't mind discussing with this second person. The second person is one of a number of therapists who consented to participate and who will discuss this area with you. You will meet at ---(time)--- to complete a few brief paper and pencil questions and then have a conversation which will be videotaped. After the discussion there will be a few more paper and pencil items. The entire time for this part of the study will take about 1 1/2 hours.

APPENDIX E
RULES FOR LOCATING SEGMENTS
WITHIN FULL INTERVIEWS

Master tapes are composed of three-minute segments of interviews with interviews and segments within interviews in randomized order. There are a total of 120 segments with 3 segments from each of the 40 approximately 50 minute interviews. Position of segments within each interview was determined by these rules.

Rule 1. Segment 1 begins at the beginning of the interview and continues as described in Rule 4. Specifically, the beginning of the interview is defined as the first video-resolved frame with clear audio. At that point the counter on the play-back recorder is set to 000.

Rule 2. Segment 2 begins with the first statement (as defined in the Method section) which begins after 17 minutes of interview time have elapsed. Specifically, the play-back recorder is run forward to 425. It is then played past 430, and the first statement beginning after that point (430) is noted. The playback recorder is then rewound, played forward, and recording started at the identified statement. All machines used in this recording of master tapes were identical SONY units. (Other machines would need to have different counter numbers specified.)

Rule 3. Segment 3 begins with the first statement (as defined in the Method section) which begins after 17 minutes of interview time have elapsed. The same procedure is used

as in Rule 2, with counter settings 595, and 600. If interview ends prior to 3 minutes elapsed time, rewind 100 counter units and use that number as the starting point. If the interview was too long, use 650 or 700 as the starting point.

Rule 4. On all segments, stop recording at the first sentence or clause end after 180 seconds or at 185 seconds.

APPENDIX F
TRAINING MANUAL FOR UNITIZATION OF
TRANSCRIPTS BY PROPOSITION

Your role in this study is to assist in the preparation of transcripts of interviews for scoring by other raters like yourself. It is most important that your work be done accurately, and it will require that you concentrate well on it. This training manual will help you learn the tasks, and generally, the tasks are specific and should not be too difficult. Your task is to go through the transcript and to use diagonal marks to separate phrases defined below as PROPOSITIONs.

A PROPOSITION is defined as a sequence of words in the transcript containing a subject and predicate, whether expressed or implied, and including the modifiers of that subject-predicate group. This is essentially the definition of a clause, which may be either coordinating (or independent) or subordinating (or dependent). Any clause is scored as a PROPOSITION with two additional stipulations. Parenthetical clauses, clauses which come in the middle of a larger clause, are not scored as separate PROPOSITIONs but are considered PARENTHEICALs within a PROPOSITION. Also, incomplete clauses, as, for example, when a person changes the message mid-sentence, are scored as PROPOSITIONs.

The following suggestions will help in making these scorings. In the Harbrace College Handbook, read the definition of conjunction, p. 446, and the discussion of conjunctions, p. 12-13. Conjunctions are, of course included

with the clause they introduce. Infinitives are not predicates. When auxiliary verbs (Harbrace, pp. 3-4) occur, make sure the PROPOSITION includes the entire predicate. Phrases which interrupt the predicate (e.g. "sort of" in "he would sort of be nice") do not split up the PROPOSITION. "You know" in its use as a sort of filling phrase, is not scored as a PROPOSITION unless it occurs clearly outside of any other PROPOSITION. Here are some examples:

1. /How much of this is a proposition?/
2. T: /How do you feel?/
C: /Bad./ I just really feel bad./
3. /He wants it this way,/and so do we./
4. /Whenever it happens, /we all know about it./
5. /This, that he wants, is going well./

Now note the subject-predicate in each PROPOSITION:

1. /this is/
2. T: /you do feel/
C: / (I feel) / I feel/
3. / he wants / we do (want) /
4. / it happens / we know /
5. / this is going /

Words in parentheses indicate they were understood, and note that in #5 there is a parenthetical phrase that is not scored as a PROPOSITION even though there is a subject-predicate: "he wants."

Now mark the diagonals on this reproduction of part of a transcript, and have that practice checked by the experimenter before continuing past the practice.

T: I guess the reason I said that, Ray, was because you seemed to express such a sense of freedom when she was gone.

C: Well that's just how it affected me. Like suddenly I
 felt like I was just free.

T: So she is after you pretty frequently.

C: Yep.

T: Kind of asking you to shape up.

C: Well, it just seems like a constant hassle trying to
 account for places to go and things I do and making all
 the normal trivial talk that really doesn't make any
 difference. I'd just as soon skip anyway. It's a
 bother.

If you have any questions, discuss them with the exper-
 menter when he checks your practice rating.

APPENDIX G
TRAINING MANUALS FOR
RATING ALL VARIABLES¹

Your role in this study is to locate instances of certain verbal behavior in typed transcripts of interviews. It is critically important that your work be done accurately, and it will require that you concentrate well on it. Generally, your rating task is quite specific and should not be too technically difficult.

There are three definitions that will specify the score you make in each situation. The first definition is called the "unit," the second, the "category," and the third, the "indicator" or set of rules for assigning a unit to a specified category.

In all of the rating tasks in this study, several ideas are important. One is the manner in which the pages of the transcript are labeled. The largest division labeled is the "interview segment" and this is the second number in the label (the first number is an arbitrary grouping number). The third number is the page number within a particular segment. The last number is the page number within the entire group of all transcripts. In other words, the page labeled: 1-04-2-008, is the second page of the fourth segment in the first group of segments, and it is the eighth page of the entire 288 pages of the transcript.

¹Note: Each rater had a training manual with this introduction, the section corresponding to his or her task, and one or more of the lists of words or phrases from Appendices H, I, J, or K as specified.

Also, each time the speaker changes from the patient to therapist or vice versa, this defines a "statement" and statements are numbered down the left hand margin of the page beginning with one at the beginning of each "segment." Each "proposition" is set off by diagonal marks, and is numbered starting with one (1) at the beginning of each "statement."

Training Manual: Primary Affect Word (PAW)

In scoring PAWs, the unit is the WORD, the category is PAW, and the indicator (or rule) is that the word is found on the attached list of PAW words. WORD is defined as the basic blocks of letters constituting units within the transcript, and is set off at its beginning and end by a space or punctuation. (Note: if a typographical error results in no space being left, it is considered that the words are separate for scoring and counting purposes.) The category is noted by entering a code number for the WORD scored, and labeling the scoring page, PAWs. The code number is composed of the page label plus the statement number containing the word, the PROPOSITION number containing the WORD, and the number of the WORD counting from the beginning of the PROPOSITION.

The words on the list of PAW words are almost all in the adjective form, but any part-of-speech form of the word is to be scored. Generally these words are words which almost always denotatively refer to affective, emotional, or feeling experience. Examples are angry, sad, happy, etc. (See list at this time.) Some of the words are called "limited PAWs," and these are to be scored only when the meaning of the word as used is equivalent to the meaning as prescribed on the list. "Feeling" is marked with an asterisk, and its code number should be marked with an asterisk. It should not be coded at all, however, when it has the meaning of "think" rather than "feel." Here are some examples:

Ex. 1: a) He is angry. b) His anger is strong.
c) He spoke angrily. d) He angered them.

Ex. 2: She is a moody person, who is really weird.

Ex. 3: I'm tired and depressed.

Ex. 4: a) I was really hurt when she left.
b) I was really hurt in the accident.

Ex. 5: a) I feel like I've been through a wringer.
b) I feel like he's a real dummy.

Notes:

Ex. 1: all forms of "angry" are marked as PAWs: adjective, noun, adverb, and verb.

Ex. 2: "Moody," but not "weird" is found on the list of PAWs.

Ex. 3: "Depressed" but not "tired" is found on the list.

Ex. 4: "Hurt" is scored only when it has the limited meaning, emotionally injured and not physically injured.

Ex. 5: In "a" "feel" denotes emotional experience, but in "b" it denotes thinking.

Now try this reproduction of part of a transcript, and circling each WORD you find on the list of PAWs.

T: But you have hurt them.

C: Sure. Whenever you fight a lot you always hurt somebody, particularly a child.

T: You sound a little bit guilty.

C: I feel guilty because; it's not my kid's fault. She has nothing to do with it.

If you have any questions, discuss them with the experimenter when he checks your practice rating.

Training Manual: Secondary Affect Word (SAW)

In scoring SAWs, the unit is the WORD, the category is SAW, and the indicator (or rule) is that the word is found on the attached list of SAW words and that it occurs within a PROPOSITION containing (explicitly or implicitly) a form of the word "feel" or "sense," or within a PROPOSITION modifying such a PROPOSITION. PROPOSITION was defined above. WORD is defined as the basic blocks of letters constituting units within the transcript, and is set off at its beginning and end by a space or punctuation. (Note: if a typographical error results in no space being left, it is considered that the words are separate for scoring and counting purposes.) The category is noted by entering a code number for the WORD scored, and labeling the scoring page, SAWs. The code number is composed of the page label plus the statement number containing the WORD, and the number of the WORD counting from the beginning of the PROPOSITION. One code number is recorded for the "feel" or "sense" WORD, and a second number, for the SAW WORD.

The words on the list of SAW words are almost all in the adjective form, but any part-of-speech form of the word is to be scored. Generally these SAW words are words which denotatively refer to affective, emotional, or feeling experience when used with the word "feel" (usually as a verb or noun) or the word "sense." Examples are alert, helpless, inhibited, etc. (See list at this time.)

Here are some examples:

Ex. 1: T: How do you feel?

P: Inhibited.

Ex. 2: This is an impatient feeling, but then I'm an impatient person.

Ex. 3: I have a sense of uncertainty sitting here.

Notes:

Ex. 1: "Inhibited" is circled to indicate it is a SAW since it is on the list of SAWS and the patient statement implies "I feel".

Ex. 2: "Impatient" is only scored when it falls within a PROPOSITION with "feel." Also, the second PROPOSITION does not modify the first, which would have been the case had it read: "This feeling is strange, as I am very impatient."

Ex. 3: "Uncertainty" is on the list and is in PROPOSITION with "sense."

Now try this reproduction of part of a transcript, circling each WORD you find on the list of SAWS which fits the criteria.

T: What do you feel like today?

P: Really tired. I feel really depressed, and I wish I weren't so insecure. I really feel insecure today, especially today.

T: Today especially, you're feeling really depressed and insecure. And really tired.

If you have any questions, discuss them with the experimenter when he checks your practice rating.

Training Manual: Affective Idioms (AI)

In scoring AIs, the unit is the PROPOSITION, the category is AI, and the indicator (or rule) is that a group of words occurring in the PROPOSITION is also found in a list of AIs attached to this manual. PROPOSITION has been defined earlier. The category is noted by entering a code number for the PROPOSITION scored, and labeling the scoring page, AIs. The code number is composed of the page label plus the statement number containing the phrase and the PROPOSITION number.

Generally AIs are groups of words which together denote affective, emotional, or feeling experience, but separately do not. Examples are "sick and tired" and "peace of mind." (See list at this time.) Flexibility must be given for the exact arrangement of the words and variations in the parts of speech used. In each case the test is whether the phrase as used in the transcript denotes affective experience. Here are some examples:

- Ex. 1: I have peace of mind.
Ex. 2: He must feel screwed up.
Ex. 3: That really gives me the creeps.

Now try this reproduction of part of a transcript, circling each phrase you find from the list of AIs.

P: Well, I just feel like there's something wrong. I'm just sick and tired of living. That's really been making me down for the last couple of months.

T: You're really feeling depressed, huh?

P: Yah. I just have no taste for anything. And now this is really giving me the creeps; my not feeling like living.

If you have any questions, discuss them with the experimenter when he checks your practice rating.

Training Manual: Self References (SR)

In scoring SRs, the unit is the PROPOSITION, the category is SR, and the indicator (or rule) is defined by four rules discussed below. PROPOSITION has been defined earlier. The category is noted by entering a code number for the PROPOSITION scored, indicating the rule number used, and labeling the scoring page, SR. The code number is composed of the page label plus the statement number plus the PROPOSITION number. Since several SRs may follow one another, the code number may be entered as a range as long as only SRs are included. If this is done, each scoring rule used at least once within the sequence is indicated.

Generally, a self reference (SR) is a verbal response by a subject which expresses descriptively or emotively something about the subject in relation to himself, others, or the world. This indicator is more specifically defined by the following four rules.¹ Examples of each follow the rule.

Rule 1: A self reference (SR) statement must begin with or include a first person singular personal pronoun (e.g., I, myself, mine) unless it is covered by one of the criteria below.

Rule 2: First person plural pronouns (e.g., we, our, ourself, ours) are counted as self references when the group referred to is intimately related to the subject (e.g., family, roommate, girlfriend).

Rule 3: Second person pronouns (e.g., you, your, yours) are counted as self references when they are clearly used as a substitute for a first person pronoun form and not as an

¹Note: These four rules are taken directly from materials received from Green and Marlatt (Note 1).

impersonal reference to a group. They can be checked, if necessary, by comparing the sense of the statement when substituting a first person pronoun with the sense of the statement when substituting a group reference (e.g., they, everybody, the world, etc.).

"You get a good feeling with these people." is counted.
 "You can't solve anything that way" is not counted.

Rule 4: A response may be a self reference without explicitly using a personal pronoun if it is closely related to a previous self reference and is contingent upon it. These responses can be checked by adding a self reference phrase such as "to me" to the statement.

"I have met a lot of people here. It certainly has been satisfying." (Both sentences are self references.)

Here are some more examples, with SRs underlined. Note that each example illustrates one of the rules.

Ex. 1: /I like this. /This is mine./

Ex. 2: a) /My family is a lot of fun. /We do things together./
 b) /American citizens celebrated the bicentennial./ /It was very interesting to us all./

Ex. 3: a) /You really like coming here./
 b) /You do this,/ and it will make a lot of difference./

Ex. 4: /I have really tried hard./ It has just about done it./

Ex. 5: /I like doing things like this/that are a lot of fun./

Now try this reproduction of part of a transcript, underlining any PROPOSITION that should be scored SR.

T: But you have hurt them.

C: Sure. Whenever you fight a lot you always hurt somebody, particularly a child.

T: You sound a little bit guilty.

C: I feel guilty because; it's not my kid's fault. She has nothing to do with it.

If you have any questions, discuss them with the experimenter when he checks you practice rating.

Training Manual: Therapist Instruction Strategy (I)

In scoring Is, the unit is the PROPOSITION, the category is I with subcategories of I-1, I-2, and I-3, and the indicator or rule is specified by a set of rules defined earlier. The category is noted by entering a code number for the PROPOSITION scored, indicating the type of Instruction (I-1, -2, or -3), and labeling the scoring page, I. The code number is composed of the page label plus the statement number plus the PROPOSITION number.

I-1 has the general meaning: "Talk about your feelings." There are three rules for assigning a therapist PROPOSITION (or PROPOSITION Group) to category I-1. 1) The PROPOSITION is in the imperative mood, or can be translated into the imperative mood without significantly altering the PROPOSITION's meaning. 2) The PROPOSITION contains some form of the word "feel," "emotion," "affect," or "sense." 3) The PROPOSITION (or group of PROPOSITIONS) has the general meaning: "Talk about your feelings."

I-2 has the general meaning: "Do not talk about subject X (where X is a subject other than the general topic of feelings)." The rules here are: (1) The PROPOSITION is in the imperative mood or can be translated as above. 2) the PROPOSITION's imperative is a negation of something. 3) The PROPOSITION does not contain any form of the words listed under #2 of the indicator for I-1. 4) The general meaning is as at the beginning of this paragraph.

I-3 has the general meaning "Talk about subject X" or

"You might talk about subject X" where X is from one of the three lists of words and phrases attached to this manual. Rules for assigning to this category are: 1) The PROPOSITION is in the imperative or second person conditional mood. 2) The PROPOSITION contains some form of one or more words from the attached list of words and phrases. 3) The PROPOSITION contains as a predicate one or more of the following verbs: begin, report, talk, tell, say, speak, and think. 4) The general meaning is as above.

Here are some examples. Note that 1, 2, and 3 would be assigned to those respective categories, and that 4 and 5 would not be assigned to any category.

Ex. 1: Tell me how you feel.

Ex. 2: Don't talk about your relatives.

Ex. 3: You might talk about anger or sadness. (or)
Talk about anger or sadness.

Ex. 4: How were you feeling?

Ex. 5: Don't talk about your feelings.

Now try this part of a transcript, putting the category number to the left of any statements containing scored PROPOSITIONS. Remember that more than one PROPOSITION may need to be grouped to assign it to a category.

T: /How are you feeling?/

C: /Okay. /I'm really worried about this thing./

T: /Talk about your feelings about it./

C: /I have to go take a test, /and if I don't pass it/
/I'll have to take it over./

T: /Don't just tell me/what is happening; /how do you feel about it?/

C: /What do you mean?/

T: /Well, you might talk about the feeling you have when you go to take the test /or when you fail,/like feeling anxious, upset, frustrated./

Discuss any questions you have with the experimenter when he checks your practice rating.

Training Manual: Therapist Reinforcement (R)

In scoring Rs, the unit is the WORD with certain stipulations, the category is R, and the indicator (or rule) is that the WORD or WORDs are found on the attached list of therapist reinforcers. WORD is defined as the basic block of letters constituting units within the transcript and is set off at its beginning and end by a space or punctuation. The stipulations are that there may be one or two WORDs in the unit and that they must occur at the beginning of a therapist statement as defined earlier. The category is indicated by entering a code number for the WORD or WORD pair scored, and labeling the scoring page R. The code number is composed of the page label plus the statement number.

Generally, the words on the list are brief expressions of approval, agreement, or attention by the therapist. Specifically, the indicator is that the unit is included on the list attached. Examples are "good," "mm-hmm," or "yes." (Read over the list at this time.)

Here are some examples:

Ex. 1: I see. You really think that's the way it is.

Ex. 2: Mm-hmm. I see.

Ex. 3: That's terrific.

Now try this reproduction of part of a transcript, circling each R WORD or WORDS.

C: I feel great.

T: Good.

C: I like football. I feel great when I'm playing.

T: Mm-hmm.

C: I play every day.

T: Oh?

If you have questions, discuss them with the experimenter,
when he checks your practice rating.

APPENDIX H
LISTING OF PRIMARY AFFECT WORDS
AND LIMITED PRIMARY AFFECT WORDS

Primary Affect Words

ABHORANT	DREADING	INTIMIDATED	SAD
AFFECTIONATE		IREFUL	SATISFIED
AFRAID	EAGER	IRRITABLE	SCARED
AGHAST	EARNEST	IRRITATED	SEDATE
AGITATED	ECSTATIC		SENSUOUS
AMAZED	ELATED	JEALOUS	SENTIMENTAL
ANGRY	EMBARRASSED	JITTERY	SERENE
ANGUISHED	EMOTIONAL	JOLLY	SHY
ANXIOUS	ENJOY	JOYFUL	SINCERE
ANNOYED	ENRAGED	JOYOUS	SORROWFUL
APPALLED	ENRAPTURED		SQUEAMISH
APPREHENSIVE	ENTHUSED	LIGHTHEARTED	STARTLING
AWED	ENVIOUS	LONELY	SUFFERING
	EXCITED		SULLEN
BASHFUL	EXHILARATED	MAD	SURPRISED
BITTER	EXHUBERANT	MALEVOLENT	SYMPATHETIC
BLUSHED		MEEK	
BORED	FANATICAL	MISERABLE	TENSE
BOTHERED	FEARFUL	MISGIVING	TERRIFIED
	FEELING	MISTRUST	THRILLED
CALM	FELICITOUS	MOODY	TIMID
CHEERFUL	FERVENT		TRANQUIL
CHERISHED	FIDGETY	NERVOUS	TREPIDATION
COMPOSED	FLUSTERED		TRUSTING
CONCERNED	FRETFUL	OPTIMISTIC	
CONFIDENT	FRIGHTENED	OVERWHELMED	UNEASY
CONFUSED	FRUSTRATED		UNHAPPY
CONSTERNATION	FURIOUS	PANICKY	UNNERVED
CONTENTED		PASSIONATE	UNPERTURBED
CRUEL	GAY	PEACEFUL	UNRUFFLED
CURIOS	GLAD	PEPPY	UPSET
	GLEEFUL	PERTURBED	
DEJECTED	GLOOMY	PESSIMISTIC	VEHEMENT
DELIGHTED	GROUCHY	PIQUED	VIGOR
DEPRESSED	GUSTO	PITY	
DESPERATE		PLACID	WISTFUL
DESPONDENT	HAPPY	PLEASANT	WORRIED
DETEST	HATEFUL	PROUD	
DISAPPOINTED	HORRIFIED		ZEALOUS
DISGUSTED	HOSTILE	RAPT	ZESTY
DISCONTENTED	HYSTERICAL	RAPTUROUS	
DISCOURAGED		RELAXED	
DISENCHANTMENT	IMPETUOUS	REPOSED	
DISILLUSIONED	IMPRESSED	REPULSED	
DISMAYED	INCENSED	RESENTFUL	
DISPLEASED	INFURIATED	RESTFUL	
DISSATISFIED	INSPIRED	RESTLESS	

Limited Primary Affect Words

ATTRACTED = LIKE
BLUE = SAD
BREATHLESS = THRILLED
BUGGED = BOTHERED
CENTERED = EMOTIONALLY SETTLED
COOL = CALM
CROSS = SULKY
DIG = LIKE
DISLIKE = EMOTIONALLY UNATTRACTED
DOWN = DEPRESSED
ELECTRIFYING = STIMULATING
FLUSHED = BLUSHED
HEARTY = VIGOROUS
HIGH = EUPHORIC
HURT = EMOTIONALLY INJURED
IMPRESSED = AFFECTED
LIKE = ATTRACTED TO
MOVED = EMOTIONALLY AFFECTED
RAVING = ANGRY
RELISHED = ENJOYED
REPELLING = REPULSING
SEETHING = ANGRY
SHOCKING = AFFECTING
SMARTING = HURTING EMOTIONALLY
SPEECHLESS = SHOCKED
STEWED = IRED
TEMPER = ANGER
TENDER = AFFECTIONATE
TIRED = BORED
TOGETHER = EMOTIONALLY SETTLED
TOUCHED = AFFECTED
WARM = EMOTIONAL
WINCED = EMOTIONALLY HURT

APPENDIX I
LISTING OF SECONDARY AFFECT WORDS

ACTIVE	HELL	SAVAGE
ADVENTUROUS	HELPLESS	SECURE
AGGRESSIVE	HOPELESS	SETTLED
AGREEABLE		SHAKY
ALERT	IMPATIENT	SHITTY
AMBITIOUS	INDIFFERENT	SLEEPY
APPRECIATIVE	INFLAMED	SLOW
AWFUL	INHIBITED	SLUGGISH
	INSECURE	SOLEMN
BAD	INTENSE	STEADY
CLOSE	KIND	THOUGHTFUL
COMFORTABLE		THREATENED
CONSIDERATE	LEISURELY	TIRED
CRAPPY	LIVELY	TOGETHER
CRUDGY	LOATHE	TOLERANT
	LOST	TRoubled
DEFENSIVE	LOVING	
DESIRE		UNCERTAIN
DOUBTFUL	MEAN	UNCONCERNED
DULL		UNDISTURBED
EASY	NEGATIVE	UNSURE
ENERGETIC	NUMB	USELESS
FREE	PLODDING	WEARY
FRIENDLY	POSITIVE	WEIGHTY
	PROVOKED	WEIRD
		WITHDRAWN
GOOD	QUARRELsome	WONDERMENT
GRATEFUL		WORTHLESS
GRATIFIED		
GREAT	REBELLIOUS	
GUILTY	ROMANTIC	
	ROTten	

APPENDIX J
LISTING OF AFFECTIVE
IDIOMS AND SLANG

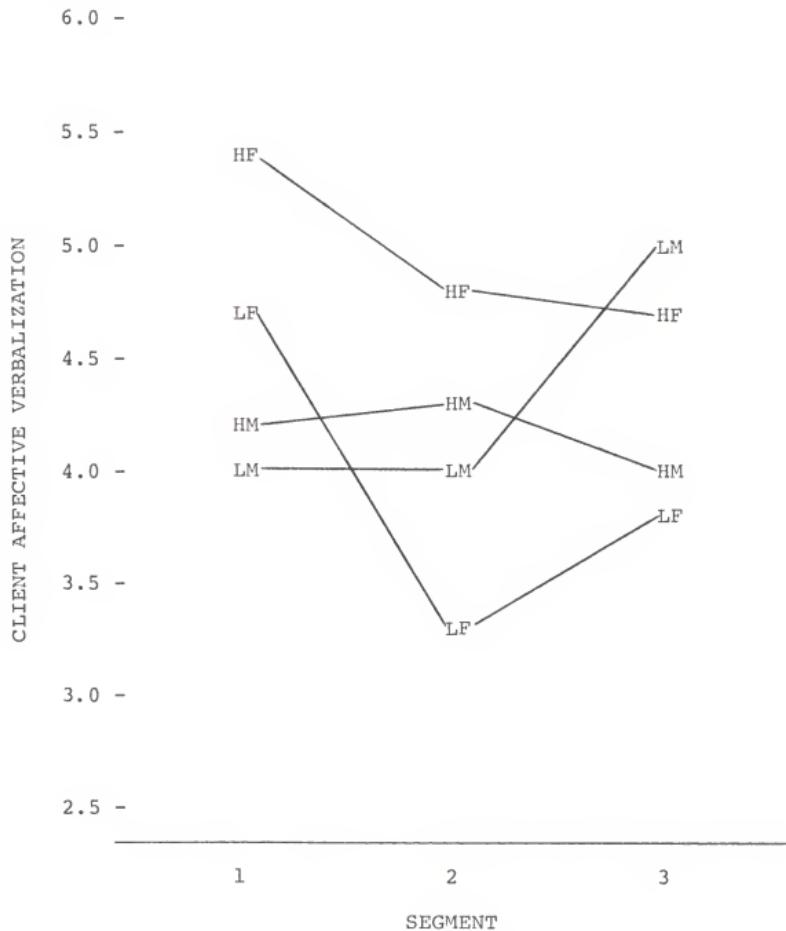
ABIDE	(can't abide someone or something)
BANG	(get a bang out of)
BESIDE	(be beside oneself)
BLOW	(blow one's mind)
BOTTOM	(from the bottom of one's heart)
BURNS	(burns one up = angers)
CARE	(care for someone or something)
CARE	(care nothing for someone or something)
CHARGE	(get a charge out of)
CONSUMED	(consumed with something = zealous)
CREEPS	(flesh creeps)
CREEPS	(gives me the creeps)
EATS	(eats away at one)
EATS	(eats one's heart out)
EDGE	(be on edge)
ENDURE	(can't endure)
ENTER	(enter the spirit of)
FED	(fed up)
FORWARD	(looking forward to)
FREAKED	(freaked out)
FUCKED	(fucked up)
HAIR	(hair stands on end)
HEAD	(head over heels)
HEART	(heart and soul)
HEAVY	(heavy experience)
KICKS	(do it for kicks)
LOOK	(look up to)
LUMP	(lump in the throat)
PEACE	(peace of mind)
PINS	(on pins and needles)
PISSED	(pissed off, be pissed)
SICK	(sick and tired of)
SCREWED	(screwed up)
SEIZED	(seized with emotion)
SOUL	(soul stirring)
STAND	(can't stand)
TAKE	(can't take it anymore)
TAKE	(take to someone = attracted)
TASTE	(have a taste for; or not for)
TEAR	(tears one up; all torn up)
THINK	(think much of someone; or little of)
TICKED	(ticked off = mad)
TIRED	(tired of living)
TURN	(person turns color; turn green, black, pale)
TURNS	(turns one on)
VEGETATES	(vegetates one; vegetates one out)
WELL-BEING	(sense of well-being)
WRONG	(feel something's wrong)

APPENDIX K
LISTING OF THERAPIST VERBAL REINFORCERS

MM-HMM*
GOOD
WONDERFUL
YEAH
I SEE
YES
TRUE
THAT'S TRUE
AH-HAH*
YEP
RIGHT
UH-HUH*
OKAY (OR O.K.)

*Slight variations in these (e.g., Um-huh), should also be scored.

APPENDIX L



Legend:

- HM = High compatible dyad males.
- HF = High compatible dyad females.
- LM = Low compatible dyad males.
- LF = Low compatible dyad females.

INTERACTION GRAPH:
COMPATIBILITY X CLIENT SEX X SEGMENT
FIGURE L-1

6.0 -

5.5 -

CLIENT AFFECTIVE SELF REFERENCE

5.0 -

4.5 -

4.0 -

3.5 -

3.0 -

2.5 -

HF

LF

HM

LM

HF

LM

HM

LF

LM

HF

HM

LF

1

2

3

SEGMENT

- Legend:
- HM = High compatible dyad males.
 - HF = High compatible dyad females.
 - LM = Low compatible dyad males.
 - LF = Low compatible dyad females.

INTERACTION GRAPH:
COMPATIBILITY V CLIENT SEX X SEGMENT
FIGURE L-2

APPENDIX M

16 -

14 -

12 - uuu

uuu

10 -

tttuuu

8 - ttt ttt ttt

6 -

4 -

uuu ttt

2 - ttt uuu uuu ttt

uuu ttt

0 - uuu

0.0 2.5 5.0 7.5 10.0 12.5 15.0 17.5 20.0

(1.0) (2.1) (3.1) (4.2) (5.2) (6.3) (7.4) (8.4) (9.5)

CLIENT SCORE INTERVALS^a^a Intervals for transformed scores are in parentheses.

u Indicates untransformed scores.

t Indicates transformed scores.

DISTRIBUTION OF SCORES FOR CLIENT AFFECTIVE
VERBALIZATION IN SEGMENT 1
FIGURE M-1

16 - uuu

14 -

uuu

12 - ttt ttt

10 - ttt

8 -

6 -

uuu

4 - uuu

ttt uuu ttt

2 -

0 -

ttt uuu uuutttuuuttt

0.0	2.5	5.0	7.5	10.0	12.5	15.0	17.5	20.0
(1.0)	(2.1)	(3.1)	(4.2)	(5.2)	(6.3)	(7.4)	(8.4)	(9.5)

CLIENT SCORE INTERVALS^a

^a Intervals for transformed scores are in parentheses.

u Indicates untransformed scores.

t Indicates transformed scores.

DISTRIBUTION OF SCORES FOR CLIENT AFFECTIVE
VERBALIZATION TOTAL SCORE
FIGURE M-2

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Stanley E. Jones is married to the former Barbara-jeanne Muceia.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

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